Fatal and non-fatal accidents in building maintenance service in Japan in 1999-2022

building maintenance service industry Code No.150101

Type of accidents in building maintenance service in 1999-2022

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	2022	total
fall from height	679	628	694	676	704	680	688	728	655	699	621	668	629	631	649	653	629	630	652	656	720	632	663	662	15,926
falling to same level	1,092	1,101	1,173	1,117	1,186	1,202	1,149	1,206	1,241	1,292	1,192	1,242	1,255	1,240	1,371	1,422	1,334	1,414	1,405	1,705	1,585	1,585	1,709	1,795	32,013
crash	135	158	142	131	130	135	143	162	137	194	165	173	147	167	165	163	146	161	170	200	217	214	183	231	3,969
struck by flying or falling object	71	80	75	74	82	75	82	76	65	68	64	64	73	51	56	66	79	55	56	54	58	63	50	58	1,595
collapse	32	21	34	32	26	37	34	26	23	29	27	27	13	24	20	27	15	18	21	25	23	20	10	17	581
crashed by	68	66	65	49	65	70	64	62	66	66	70	48	58	59	69	44	64	68	51	78	64	58	48	76	1,496
caught in/between	208	239	233	206	220	235	187	197	195	213	161	179	163	168	181	143	177	166	169	203	151	133	156	138	4,421
cut	126	123	101	110	119	112	84	100	87	96	82	96	66	68	95	88	62	68	61	58	71	74	59	66	2,072
injury to the sole of the foot	7	4	3	3	8	4	3	4	2	4	6	3	6	3		1	1	3	5	5	1	3	3	4	86
drown					1				1		2	1	8				1	2	1	2	1	1	2	1	24
contact to high/low-temperature	34	24	39	29	19	27	29	30	36	27	26	36	26	17	31	29	18	32	35	43	44	44	26	42	743
contact to harmful																									

substance	17	20	17	25	22	22	30	10	25	31	21	14	21	20	18	19	22	17	21	24	25	24	16	27	508
electric shock	3	9	6	4	5	1	5	5	3	3	3	6	8	2	2	4	3	2	3	5	4	2	4	1	93
explosion		3	1	1							1		2			1									9
burst	1			1		2							1					1			1				7
fire			2		1	1			1									1					1		7
traffic accident (public road)	59	65	76	70	67	48	64	77	72	73	53	69	58	73	75	85	51	41	66	84	64	53	40	48	1,531
traffic accident (others)	3	1	2		1		1	2	5	2			1	2	2	1	1	1	1	1	2	6		2	37
reaction to motion/improper motion	250	218	242	217	231	273	256	288	330	332	324	288	311	293	323	304	323	335	334	370	413	403	437	465	7,560
others	13	12	14	13	14	25	18	20	28	14	9	11	23	20	12	19	24	16	29	18	23	82	125	20	602
unclassifiable	4	3	6	17	11	2	10	7	12	5	4	2	3	2	4	5	5	5	5	6	2	2	6	6	134
total	2,802	2,775	2,925	2,775	2,912	2,951	2,847	3,000	2,984	3,148	2,831	2,927	2,872	2,840	3,073	3,074	2,955	3,036	3,085	3,537	3,469	3,399	3,538	3,659	73,414

Causal agents (large) of fatal and non-fatal accidents in building maintenance service in 1999-2022

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	2022	total
machine	87	89	98	87	83	75	75	72	61	69	61	68	55	56	64	53	64	46	55	42	54	45	46	58	1,563
crane, conveying machine	163	181	209	183	180	147	150	173	175	177	156	164	164	159	164	164	136	119	137	180	170	126	121	132	3,830
other equipment	602	589	637	610	629	660	647	715	729	802	669	733	617	694	765	711	619	676	687	696	752	723	676	746	16,384

temporary buildings, establishments	1,432	1,453	1,481	1,411	1,520	1,540	1,440	1,566	1,516	1,618	1,446	1,514	1,517	1,449	1,535	1,555	1,553	1,689	1,667	1,984	1,888	1,824	1,921	1,956	38,475
substance, material	108	102	94	119	124	110	108	92	102	101	94	70	79	88	95	86	78	68	76	77	80	75	68	79	2,173
load	94	106	98	87	77	84	112	109	119	106	85	87	96	67	83	88	107	100	104	107	111	107	110	128	2,372
environment	69	77	107	65	81	102	106	94	87	89	100	85	127	107	147	193	130	121	137	165	125	142	151	201	2,808
others	247	178	201	213	218	233	209	179	195	186	220	206	217	220	220	224	268	217	222	286	289	357	445	359	5,809
total	2,802	2,775	2,925	2,775	2,912	2,951	2,847	3,000	2,984	3,148	2,831	2,927	2,872	2,840	3,073	3,074	2,955	3,036	3,085	3,537	3,469	3,399	3,538	3,659	73,414

Causal agents (middle) of fatal and non-fatal accidents in building maintenance service in 1999-2022

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	2022	total
engine	3	1		1							1							1				1			8
power transmission mechanism	7	9	4	6	7	4	2	5	2	5	9	11	3	7	8	8	6	1	4	3	3	5	10	7	136
woodworking machine	3	7	8	7	3	7	5	4	5	3	4	4	3	5	7	4	6	5	7	6	7	10	6	8	134
construction machine	6	3	3	1	1	8	7	4	5	2	4	1	3	2	3	1	4	2	4	3	2	4	4	3	80
metal manufacturing machine	6	5	4	5	4	4	4	3	2	2	5	1	5	1	6	2	2	5		2	3	1	3	3	78

general machine	62	64	79	67	68	52	57	56	47	57	38	51	41	41	40	38	46	32	40	28	39	24	23	37	1,127
mobile silviculture machine																									
crane	17	17	21	22	12	20	19	15	21	17	22	17	16	17	13	11	14	7	8	20	17	9	15	10	377
conveying machine	50	79	78	68	69	41	46	63	50	52	47	52	58	47	55	54	47	45	47	48	56	49	45	45	1,291
vehicle	96	85	110	93	99	86	85	95	104	108	87	95	90	95	96	99	75	67	82	112	97	68	61	77	2,162
pressure vessel	4	2	8	3	3	3	3	2	4		5	4	2	1	8	2			1		1	1			57
chemical facilities				1																					1
welding equipment									1		2												1		4
kiln, caldron	2	3		3	1	2	2	2	2	1	1	1	3	1		1	1		1	1	4			1	33
electric equipment	9	18	21	10	12	16	12	11	17	17	9	9	19	16	5	12	11	13	20	16	12	22	18	8	333
human power machine, tools	101	91	97	81	107	128	100	105	112	126	131	112	107	107	120	126	119	97	121	121	141	160	114	148	2,772
tools	370	367	396	385	400	391	425	455	441	473	372	447	369	409	452	408	365	402	399	435	439	402	406	414	9,822
other equipments, facilities	116	108	115	127	106	120	105	140	152	185	149	160	117	160	180	162	123	164	145	123	155	138	137	175	3,362
temporary buildings, establishments	1,432	1,453	1,481	1,411	1,520	1,540	1,440	1,566	1,516	1,618	1,446	1,514	1,517	1,449	1,535	1,555	1,553	1,689	1,667	1,984	1,888	1,824	1,921	1,956	38,475
hazards, harmful substances	18	26	25	33	28	28	36	13	32	35	26	16	24	24	22	22	23	21	26	21	27	24	17	30	597
materials	90	76	69	86	96	82	72	79	70	66	68	54	55	64	73	64	55	47	50	56	53	51	51	49	1,576

load	94	106	98	87	77	84	112	109	119	106	85	87	96	67	83	88	107	100	104	107	111	107	110	128	2,372
natural environment	69	77	107	65	81	102	106	94	87	89	100	85	127	107	147	193	130	121	137	165	125	142	151	201	2,808
other causal agent	97	93	89	61	71	96	70	66	49	47	55	63	58	56	43	57	79	63	62	60	70	110	170	81	1,766
no causal agent	124	76	101	130	126	133	127	105	133	129	153	140	156	159	170	157	186	147	149	219	217	241	270	272	3,820
unclassifiable	26	9	11	22	21	4	12	8	13	10	12	3	3	5	7	10	3	7	11	7	2	6	5	6	223
total	2,802	2,775	2,925	2,775	2,912	2,951	2,847	3,000	2,984	3,148	2,831	2,927	2,872	2,840	3,073	3,074	2,955	3,036	3,085	3,537	3,469	3,399	3,538	3,659	73,414

Causal agents (small) of fatal and non-fatal accidents in building maintenance service in 1999-2022

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	2022	total
engine											1							1				1			3
power transmission mechanism			4		7		2	5	2	5	9	11	3	7	8	8	6	1	4	3	3	5	10	7	110
circular sawing machine			4		2		3		1	1	2	1		1	3	2	4	3	3	3	6	6	1	4	50
band sawing machine																									
wood planer machine			1				1				1	1								1		1			6
hollow chisel mortiser, wood borer								1																	1
chamfering																									

machine, router, woodworking milling machine																									
chain saw			1				1	2	2	1	1	1	3	2	4	1	2	1	3	1	1	2	4	3	36
other woodworking machines			2		1			1	2	1		1		2		1		1	1	1		1	1	1	17
leveling, transporting or loading machine					1		1		2				1		1				1			1	1	2	11
excavating machine			1				3		1	1	1		1	1			1		1	1		2	1	1	16
foundation work machine																									
hardening machine																	1								1
demolition machine															1			1			1				3
vehicle for high lift work								1		1	3	1				1	2		2	2	1	1	1		16
other construction machines			2				3	3	2				1	1	1			1					1		15
lathe																									
drill press, milling machine																					1				1
grinding machine, buffing machine			2		2		3	2		1	4	1	3		4	2	2	3		1	1	1	2	2	36
power press					1			1	1																3

forging pressure hammer																									
shearing machine																									
other metal manufacturing machines			2		1		1		1	1	1		2	1	2			2		1	1		1	1	18
centrifugal machine					2			1											1	1					5
mixer, grinder			2		1				1		1	1	1	1	1	2	1		4		1	1	1		19
roll machine (except printingroll machine)					1				1					1									1		4
injection molding machine													1												1
food manufacturing machine			8		1		4	3	3	4	1	4	1		6	2	3	2	3	2	2	3	2	3	57
printing machine			1						1				1			1		1							5
industrial robot										1															1
other general power machines			68		63		53	52	41	52	36	46	37	39	33	33	42	29	32	25	36	20	19	34	790
felling machine																									
mobile logging machine																									
skyline yarding machine																									

other mobile silviculture machine																									
crane			3		1		3	1	1	1	1	3				1				2		1	2	1	21
mobile crane					2		1				1		2	1			1			1	3	1			13
derrick crane																									
elevator, lift			15		6		7	7	16	8	11	10	9	12	10	9	9	4	5	12	8	6	8	6	178
cargo lifting appliance																									
gondola			3		3		6	5	3	7	3	4	3	2	2		1	2	3	3	2	1	4	2	59
lumberyard equipment, logging cableway																									
simple skyline yarding equipment																									
other powered crane							2	2	1	1	6		2	2	1	1	3	1		2	4		1	1	30
truck			47		46		34	41	35	40	33	33	43	34	44	40	30	33	32	28	39	32	30	33	727
forklift			9		7		8	6	2	6	2	4	5	2	5	3	8	4	2	6	8	6	7	4	104
railway equipment					1														1						2
conveyor			8		7		1	6	1	3	6	6	1	3	1	5	6	3	5	5	2	8	3	4	84
loader																									
straddle carrier																									
rough terrain hauler																									
other powered																									

conveying machines			14		8		3	10	12	3	6	9	9	8	5	6	3	5	7	9	7	3	5	4	136
cars, bus, motorcycle			90		86		78	87	96	99	79	89	78	87	86	91	69	60	75	102	91	61	52	68	1,624
railway vehicle			5		2		1	3		2	4	1	2	1	2	1	2	2	2	6	2	4	4	3	49
other vehicles			15		11		6	5	8	7	4	5	10	7	8	7	4	5	5	4	4	3	5	6	129
boiler			4		2		1	1	1		2	2			2	1			1			1			18
pressure vessel					1		2	1	3		1	2	1	1	3						1				16
other pressure vessels			4								2		1		3	1									11
chemical facilities																									
gas welding equipment																							1		1
arc welding equipment											1														1
other welding equipment									1		1														2
kiln, caldron							1	2		1	1	1	3	1			1		1		2			1	15
industrial dryer					1		1		1											1	2				6
other kiln, caldron									1							1									2
transmission			10		3		3	2	6	12	4	3	6	12	2	7	8	6	10	7	7	9	9	5	131
electric power facilities			1		4		3		3	2	1	4	4	1	2	2	1	2	5	4	2	2	3	1	47
other electrical			10		5		6	9	8	3	4	2	9	3	1	3	2	5	5	5	3	11	6	2	102

equipment																									
human power cranes								1		1	2	1			1	1		1	1	1	6	14	11	15	56
human power hauling equipment			59		59		66	63	81	87	93	76	73	78	87	94	85	77	97	88	105	100	76	98	1,642
human power machine			2		1						2	1			3		2	2	1		4	2		2	22
hand tool			36		47		34	41	31	38	34	34	34	29	29	31	32	17	22	32	26	44	27	33	651
ladder			293		298		294	298	282	297	250	298	264	279	287	274	224	247	229	239	243	232	208	232	5,268
slinging tool					2			2	1				1		2	1				1	1		1	1	13
other tools			103		100		131	155	158	176	122	149	104	130	163	133	141	155	170	195	195	170	197	181	3,028
other equipment, facilities			115		106		105	140	152	185	149	160	117	160	180	162	123	164	145	123	155	138	137	175	2,891
scaffolding			18		20		12	14	12	16	17	14	13	13	11	5	10	11	6	13	10	6	9	2	232
timbering			2						1																3
stairs, landing stage			333		334		344	391	341	389	364	362	363	330	367	413	400	419	417	442	493	460	505	513	7,980
opening			18		18		9	20	13	9	14	19	9	5	18	5	7	13	16	21	13	16	9	15	267
roof, beam, haze, crossbeam, principal rafter			17		14		15	24	10	28	16	13	22	20	20	16	13	14	11	15	12	16	18	12	326
working platform, boot board			213		242		180	203	237	206	223	193	156	177	188	194	173	176	175	262	226	183	142	173	3,922
passage			453		500		497	495	524	538	467	557	593	512	557	571	531	662	663	834	747	760	835	802	12,098
building,																									

establishment			262		225		237	261	236	274	234	218	230	256	243	172	223	191	224	232	173	198	202	235	4,526
other temporary buildings, establishments			165		167		146	158	142	158	111	138	131	136	131	179	196	203	155	165	214	185	201	204	3,285
explosive substance					2					1			1			1				1					6
inflammable substance			3							1								1		1	1		1		8
inflammable gas								1	1	1			2					1	1				2		9
harmful substance			8		13		14	3	17	17	12	9	7	10	9	6	10	9	13	11	5	5	3	7	188
radiation																									
other hazards, harmful substances			14		13		22	9	14	15	14	7	14	14	13	15	13	10	12	8	21	19	11	23	281
metal material			26		27		25	22	14	25	23	14	17	17	15	13	13	11	15	10	12	16	13	12	340
lumber, bamboo			9		14		6	8	9	5	10	2	5	6	9	6	5	3	6	11	6	6	8	5	139
stone, sand, substance			7		3		2	5	7	4	3	2	5	7	6	2	3	1	4	5	4	8	4	1	83
other materials			27		52		39	44	40	32	32	36	28	34	43	43	34	32	25	30	31	21	26	31	680
load			85		68		100	94	108	96	75	76	84	60	81	79	100	92	92	97	100	98	99	120	1,804
machine/equipment as load			13		9		12	15	11	10	10	11	12	7	2	9	7	8	12	10	11	9	11	8	197
natural ground, rock			8		7		11	6	9	5	5	6	8	7	7	12	7	3	8	4	9	4	6	3	135
standing tree			4		14		3	3	10	4	3	6	10	9	10	9	10	11	7	6	6	14	8	7	154

water			16		5		14	18	13	11	14	5	19	8	4	11	2	5	3	4	4	8	8	6	178
abnormal environment										1		1	1	4	3	2	1			4	1		1		19
high/cold temperature environment			13		3		10	7	7	6	9	16	19	7	15	12	10	22	19	34	29	30	21	36	325
other environments			66		52		68	60	48	62	69	51	70	72	108	147	100	80	100	113	76	86	107	149	1,684
other causal agent			89		71		70	66	49	47	55	63	58	56	43	57	79	63	62	60	70	110	170	81	1,419
no causal agent			101		126		127	105	133	129	153	140	156	159	170	157	186	147	149	219	217	241	270	272	3,357
unclassifiable			11		21		12	8	13	10	12	3	3	5	7	10	3	7	11	7	2	6	5	6	162
total	2,802	2,775	2,925	2,775	2,912	2,951	2,847	3,000	2,984	3,148	2,831	2,927	2,872	2,840	3,073	3,074	2,955	3,036	3,085	3,537	3,469	3,399	3,538	3,659	73,414

Workers age of fatal and non-fatal accidents in building maintenance service in 1999-2022

Age	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	total
19 years old or less	33	40	33	25	30	18	22	33	25	19	14	19	16	14	18	17	13	15	19	18	16	20	15	12	504
20-29	223	257	245	213	233	211	194	177	183	165	163	161	143	132	151	126	120	114	133	114	143	128	132	122	3,983
30-39	189	214	217	228	240	262	251	260	255	290	247	278	233	223	251	212	205	202	186	208	196	183	181	181	5,392
40-49	346	301	328	310	325	292	285	304	290	315	287	307	304	325	351	334	345	315	308	342	351	317	323	331	7,636
50-59	929	911	914	917	980	997	956	992	959	844	732	757	716	670	677	680	585	615	555	643	616	594	627	679	18,545
60 years old or more	1,082	1,052	1,188	1,082	1,104	1,171	1,139	1,234	1,272	1,515	1,388	1,405	1,460	1,476	1,625	1,705	1,687	1,775	1,884	2,212	2,147	2,157	2,260	2,334	37,354
total	2,802	2,775	2,925	2,775	2,912	2,951	2,847	3,000	2,984	3,148	2,831	2,927	2,872	2,840	3,073	3,074	2,955	3,036	3,085	3,537	3,469	3,399	3,538	3,659	73,414

Workers' number of workplace of fatal and non-fatal accidents in building maintenance service in 1999-2022

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	2022	total
9 workers or less	444	465	461	442	491	471	464	491	446	469	391	409	422	405	420	405	384	378	369	435	459	382	397	416	10,316
10-29	490	497	529	504	522	537	500	519	555	526	498	518	500	438	510	444	466	460	507	532	519	570	548	541	12,230
30-49	301	352	337	350	340	345	339	347	346	381	314	358	330	330	332	322	364	375	364	415	444	389	412	412	8,599
50-99	396	336	398	395	371	385	365	366	360	395	372	379	381	379	367	368	379	444	381	394	433	433	442	462	9,381
100-299	638	589	649	565	625	650	607	705	695	727	654	623	630	638	740	768	749	713	721	847	792	803	914	915	16,957
300 workers or more	533	536	551	519	563	563	572	572	582	650	602	640	609	650	704	767	613	666	743	914	822	822	825	913	15,931
total	2,802	2,775	2,925	2,775	2,912	2,951	2,847	3,000	2,984	3,148	2,831	2,927	2,872	2,840	3,073	3,074	2,955	3,036	3,085	3,537	3,469	3,399	3,538	3,659	73,414

Month of fatal and non-fatal accidents in building maintenance service in 1999-2022

Month	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	total
January	234	211	285	270	252	252	213	288	243	262	252	247	272	253	339	283	285	325	278	403	278	280	364	389	6,758
February	224	238	262	201	205	229	257	269	235	306	226	247	233	258	271	347	235	228	246	290	282	289	267	298	6,143
March	240	230	257	228	256	249	240	262	257	270	270	230	252	230	241	225	232	237	259	288	283	236	315	290	6,077
April	254	207	206	248	228	230	221	216	227	228	206	247	230	225	238	228	222	234	234	285	245	231	263	257	5,610
May	208	211	211	200	254	239	217	251	240	262	208	249	232	201	233	208	227	250	257	256	251	218	266	291	5,640
June	266	238	213	236	250	262	242	242	237	277	238	248	246	251	248	229	256	230	250	287	310	310	257	320	6,143
July	223	244	259	257	267	240	247	244	285	269	267	274	231	246	259	257	289	274	263	319	349	330	293	312	6,498
August	268	257	267	238	242	255	267	259	277	267	258	281	279	287	279	245	234	276	259	291	307	301	336	321	6,551

September	235	257	243	215	236	232	241	237	273	237	225	223	221	197	218	239	254	248	216	273	286	310	300	291	5,907
October	232	224	245	234	236	250	208	266	225	238	225	214	211	228	249	268	259	256	296	318	324	301	298	293	6,098
November	213	214	225	222	247	220	198	240	221	278	212	226	235	219	247	255	232	246	253	257	287	255	279	286	5,767
December	205	244	252	226	239	293	296	226	264	254	244	241	230	245	251	290	230	232	274	270	267	338	300	311	6,222
total	2,802	2,775	2,925	2,775	2,912	2,951	2,847	3,000	2,984	3,148	2,831	2,927	2,872	2,840	3,073	3,074	2,955	3,036	3,085	3,537	3,469	3,399	3,538	3,659	73,414

Prefecture of fatal and non-fatal accidents in building maintenance service in 1999-2022

Prefecture	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	total
Hokkaido	174	184	212		185		216	184	220	205	169	184	211	172	240	232	228	189	178	202	229	234	218	218	4,484
Aomori	36	47	27		37		34	19	32	28	30	30	33	36	36	30	24	21	23	26	37	28	44	36	694
Iwate	30	39	27		21		25	30	21	29	29	18	33	35	21	39	33	26	30	31	36	44	37	45	679
Miyagi	50	50	47		70		59	73	53	54	65	53	58	57	57	49	46	48	63	75	41	68	69	81	1,286
Akita	18	24	16		16		20	17	28	13	16	15	26	26	20	11	23	25	28	26	16	29	18	18	449
Yamagata	32	23	32		16		16	19	12	11	16	19	17	22	23	20	19	11	19	27	14	23	22	31	444
Fukushima	30	30	37		33		32	34	41	39	37	48	36	36	45	43	41	41	41	54	64	34	42	57	895
Ibaraki	34	27	40		20		22	41	36	34	31	22	35	23	31	36	43	49	42	46	45	54	52	40	803
Tochigi	48	39	33		39		56	43	42	34	28	36	39	36	39	46	30	39	41	45	42	32	36	39	862
Gunma	34	25	41		32		30	34	41	23	30	34	28	35	29	32	41	40	30	43	34	35	36	36	743
Saitama	89	81	125		82		88	101	107	114	120	112	99	98	123	132	103	125	108	131	151	171	169	198	2,627
Chiba	100	129	127		135		81	111	98	142	123	138	110	115	109	125	117	118	106	159	169	133	147	153	2,745
Tokyo	438	422	462		509		508	517	538	586	507	569	548	560	609	562	498	533	549	606	662	605	586	626	12,000
Kanagawa	216	230	206		222		208	229	216	228	195	207	180	158	212	225	221	201	215	282	262	252	287	282	4,934

Niigata	48	34	33		34		30	43	38	39	38	48	52	59	61	55	50	61	62	68	46	51	64	52	1,066
Toyama	39	24	26		34		36	33	18	28	24	22	30	27	32	43	28	30	34	29	26	34	31	25	653
Ishikawa	29	29	26		21		24	32	22	23	28	23	21	30	30	27	27	35	20	37	39	25	27	38	613
Fukui	13	14	14		11		16	15	9	19	10	10	13	12	8	21	12	7	12	19	15	30	21	16	317
Yamanashi	14	17	21		24		10	12	13	26	9	25	15	13	10	15	23	24	19	25	16	9	19	24	383
Nagano	33	26	38		27		32	25	28	38	31	21	32	34	45	39	33	36	39	46	41	38	53	71	806
Gifu	21	24	25		15		19	24	30	19	21	15	15	20	22	16	13	19	34	30	32	22	37	31	504
Shizuoka	69	53	68		66		58	96	91	99	68	71	74	73	76	86	94	77	75	101	94	95	98	116	1,798
Aichi	127	175	144		142		136	130	129	165	131	137	112	134	130	128	130	151	166	175	151	151	162	146	3,152
Mie	22	19	19		23		18	21	31	27	21	25	28	21	25	15	23	29	23	15	24	32	27	26	514
Shiga	21	22	27		21		18	25	24	15	16	22	17	25	15	20	23	24	29	27	31	25	24	27	498
Kyoto	63	57	57		65		68	53	68	73	74	66	71	82	78	57	71	53	72	55	53	70	75	82	1,463
Osaka	282	257	294		299		310	301	289	318	319	301	299	240	262	299	267	278	250	299	277	244	279	285	6,249
Hyogo	120	104	116		115		87	99	93	124	88	99	95	98	98	82	90	91	107	120	119	109	127	105	2,286
Nara	34	16	14		18		20	18	13	21	21	20	19	23	23	22	16	22	14	22	11	21	34	30	452
Wakayama	13	12	11		10		11	17	17	16	15	22	18	13	22	17	23	24	27	19	18	12	23	17	377
Tottori	12	9	13		7		12	10	12	8	9	4	10	8	8	10	9	10	13	7	14	14	11	14	224
Shimane	7	12	9		8		17	10	7	15	8	9	9	5	17	11	13	8	7	21	7	14	7	8	229
Okayama	17	29	28		36		32	32	15	33	16	24	21	30	31	25	32	30	35	35	26	38	28	38	631
Hiroshima	59	54	67		59		64	55	79	53	54	59	54	52	60	49	57	66	66	68	60	71	64	61	1,331
Yamaguchi	29	24	35		20		28	28	22	26	22	30	21	32	24	21	34	34	35	24	25	34	22	23	593
Tokushima	8	12	12		11		9	19	6	8	11	6	13	22	12	11	9	10	22	9	18	11	17	16	272
Kagawa	19	22	12		24		19	17	21	16	26	19	16	20	22	19	14	28	18	29	24	16	25	26	452

Ehime	19	42	33		24		24	24	19	17	22	19	21	28	20	20	21	28	22	33	30	21	30	33	550
Kochi	18	17	18		13		10	10	27	20	16	22	12	11	8	16	17	11	12	20	15	21	22	9	345
Fukuoka	149	132	154		153		133	169	163	143	140	142	143	137	152	144	146	168	174	201	179	199	210	191	3,522
Saga	18	11	20		14		18	22	19	16	14	16	11	11	17	20	16	24	18	20	19	17	22	18	381
Nagasaki	30	16	23		25		38	30	24	29	18	22	20	19	31	33	30	25	31	32	27	29	30	41	603
Kumamoto	53	45	39		35		29	45	36	29	35	28	38	43	39	43	32	38	41	32	51	52	38	45	866
Oita	22	40	20		35		41	36	41	25	43	29	33	20	23	24	36	22	33	32	39	26	32	42	694
Miyazaki	33	32	24		29		24	29	22	34	26	21	26	24	21	21	21	13	23	20	35	35	31	42	586
Kagoshima	12	25	25		35		24	28	28	31	19	22	17	20	16	25	26	33	30	38	33	31	30	29	577
Okinawa	20	20	28		42		37	40	45	55	42	43	43	45	41	58	52	61	49	76	72	60	55	72	1,056
total	2,802	2,775	2,925	2,775	2,912	2,951	2,847	3,000	2,984	3,148	2,831	2,927	2,872	2,840	3,073	3,074	2,955	3,036	3,085	3,537	3,469	3,399	3,538	3,659	73,414

Fatal and non-fatal accidents mean fatal and non-fatal injuries and occupational diseases with work absence of 4 days and more.

Data of 2022 year do not include Covid-19 cases. Data of 2020 & 2021 year include Covid-19 cases. Fatal and non-fatal data are same situation.

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.html (MHLW, Japan)

Return to https://www.jisha.or.jp/english/statistics/2022e_industry.html

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Fatal accidents in building maintenance service in Japan in 1999-2022

building maintenance service industry Code No.150101

Type of fatal accidents in building maintenance service in 1999-2022

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	2022	total
fall from height	8	16	11	7	19	7	6	7	13	7	9	15	3	10	5	15	6	9	12	12	11	2	10	6	226
falling to same level	2			1	1	1	1	3		1		1		1	1					1		2	1	1	18
crash	1																								1
struck by flying or falling object				1	1	1	1																		4
collapse										1															1
crashed by	2					1		1		1					1	1			1						8
caught in/between	1	3				1			2	1	2	1		2	1	1	1	1					1	2	20
cut																									
injury to the sole of the foot				1																					1
drown					1				1		2	1	8				1	1	1	2	1		1	1	21
contact to high/low-temperature									1					1								1		2	5
contact to harmful substance		3	1		1	1		1							1					1					9
electric shock		2						2			1		1			1									7
explosion																									
burst																									
fire					1																				1
traffic accident (public road)	2	4	1	2	3	4	2	6		3		3	3	1	1	4	1	1	1	2		3			47
traffic accident (others)																									
reaction to motion/improper motion																									

others			1		1		1		1		1		7		1	1	1	2			1		4		22
unclassifiable							1																		1
total	16	28	14	12	28	16	12	20	18	14	15	21	22	15	11	23	10	14	15	18	13	8	17	12	392

Causal agents (large) of fatal accidents in building maintenance service in 1999-2022

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	2022	total
machine	1					1	1		1			1	1												6
crane, conveying machine	6	7	2	2	4	3	3	8	1	5	3	3	3	4	2	7	2	1	2	2		3	1	2	76
other equipment	3	7	3	2	7	5	3	6	6	4	4	4	2	2	2	8	3	5	3	2	3	1	1	1	87
temporary buildings, establishments	5	11	7	7	14	4	3	5	7	5	6	12	1	7	4	7	4	3	10	10	8	1	10	6	157
substance, material		3	1		1	1		1							1					1					9
load																									
environment				1	1	1			2		2	1	15	2			1	3		3	1	3	1	3	40
others	1		1		1	1	2		1						2	1		2			1		4		17
total	16	28	14	12	28	16	12	20	18	14	15	21	22	15	11	23	10	14	15	18	13	8	17	12	392

Causal agents (middle) of fatal accidents in building maintenance service in 1999-2022

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	2022	total
engine																									
power transmission mechanism																									

woodworking machine																									
construction machine																									
metal manufacturing machine																									
general machine	1					1	1		1			1	1												6
mobile silviculture machine																									
crane	2	1	1		1					1				2											8
conveying machine	1	3		1	2	1	1		1	3	2	1		1		2			1			2	1	2	25
vehicle	3	3	1	1	1	2	2	8		1	1	2	3	1	2	5	2	1	1	2		1			43
pressure vessel						1																			1
chemical facilities																									
welding equipment																									
kiln, caldron																									
electric equipment		2			1			2			1					1									7
human power machine, tools						1									1										2
tools	3	4	3	1	5	2	3	3	6	4	3	4	2	2	1	7	3	3	3	2	3	1	1	1	70
other equipments, facilities		1		1	1	1		1										2							7
temporary buildings, establishments	5	11	7	7	14	4	3	5	7	5	6	12	1	7	4	7	4	3	10	10	8	1	10	6	157
hazards, harmful substances		3	1		1	1		1							1					1					9
materials																									
load																									
natural environment				1	1	1			2		2	1	15	2			1	3		3	1	3	1	3	40
other causal agent					1		1														1		4		7

no causal agent	1					1			1						2	1		2							8
unclassifiable			1				1																		2
total	16	28	14	12	28	16	12	20	18	14	15	21	22	15	11	23	10	14	15	18	13	8	17	12	392

Causal agents (small) of fatal accidents in building maintenance service in 1999-2022

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	2022	total
engine																									
power transmission mechanism																									
circular sawing machine																									
band sawing machine																									
wood planer machine																									
hollow chisel mortiser, wood borer																									
chamfering machine, router, woodworking milling machine																									
chain saw																									
other woodworking machines																									
leveling, transporting or loading machine																									
excavating machine																									
foundation work machine																									
hardening machine																									

demolition machine																									
vehicle for high lift work																									
other construction machines																									
lathe																									
drill press, milling machine																									
grinding machine, buffing machine																									
power press																									
forging pressure hammer																									
shearing machine																									
other metal manufacturing machines																									
centrifugal machine																									
mixer, grinder												1													1
roll machine (except printingroll machine)																									
injection molding machine																									
food manufacturing machine																									
printing machine																									
industrial robot																									
other general power machines	1					1	1		1				1												5
felling machine																									
mobile logging machine																									

skyline yarding machine																									
other mobile silviculture machine																									
crane																									
mobile crane																									
derrick crane																									
elevator, lift	2	1	1		1					1				2											8
cargo lifting appliance																									
gondola																									
lumberyard equipment, logging cableway																									
simple skyline yarding equipment																									
other powered crane																									
truck	1	2		1	2	1			1	3	2	1				2			1			2	1	2	22
forklift							1																		1
railway equipment																									
conveyor														1											1
loader																									
straddle carrier																									
rough terrain hauler																									
other powered conveying machines		1																							1
cars, bus, motorcycle	3	3	1	1	1	2	2	7		1	1	2	3	1	2	5	2	1	1	2		1			42
railway vehicle																									

other vehicles								1																	1
boiler																									
pressure vessel																									
other pressure vessels						1																			1
chemical facilities																									
gas welding equipment																									
arc welding equipment																									
other welding equipment																									
kiln, caldron																									
industrial dryer																									
other kiln, caldron																									
transmission		2			1			1			1														5
electric power facilities																1									1
other electrical equipment								1																	1
human power cranes															1										1
human power hauling equipment						1																			1
human power machine																									
hand tool																									
ladder	2	2		1	3	2	2	1	5	2	2	1	1	2		4	1	2	2	2	1	1		1	40
slinging tool																									
other tools	1	2	3		2		1	2	1	2	1	3	1		1	3	2	1	1		2		1		30
other equipment, facilities		1		1	1	1		1										2							7
scaffolding																									

timbering																									
stairs, landing stage		2	1		1		1	1		1	3	4			1	3	1	2	3	5	3		3	3	38
opening					1							2			1				1	1	1			1	8
roof, beam, haze, crossbeam, principal rafter	1	2	1	3	1			1						1		1	2			2	2		3		20
working platform, boot board	1	1	2		1			2		1		1		1		1	1		1		1		2		16
passage	1											1		1										1	4
building, establishment	2	6	3	2	10	4	1	1	6	3	3	4	1	4	2	2		1	4	2	1	1	2	1	66
other temporary buildings, establishments				2			1		1										1						5
explosive substance					1																				1
inflammable substance																									
inflammable gas		1																							1
harmful substance		2	1			1		1												1					6
radiation																									
other hazards, harmful substances															1										1
metal material																									
lumber, bamboo																									
stone, sand, substance																									
other materials																									
load																									
machine/equipment as load																									
natural ground, rock						1																		1	2

standing tree														1				1							2
water					1				1		1	1	15					1		2	1		1		24
abnormal environment																									
high/cold temperature environment									1		1											1		2	5
other environments				1										1			1	1		1		2			7
other causal agent					1		1														1		4		7
no causal agent	1					1			1						2	1		2							8
unclassifiable			1				1																		2
total	16	28	14	12	28	16	12	20	18	14	15	21	22	15	11	23	10	14	15	18	13	8	17	12	392

Workers age of fatal accidents in building maintenance service in 1999-2022

Age	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	total
19 years old or less			2				1																		3
20-29	2	5	1	1	5	4		4				2	1	1	1	3				1	1				32
30-39	1	3	2	2	7	3	1	6	6	3	1	5	2	3	1	4	1	1	1	1	2	1		1	58
40-49	4	4	2	1	5		2	1	1	4	3		3	1	1	4	5	1	3	3		1	2	1	52
50-59	2	6	2	3	3	3	2	5	3		3	4	6	3	2	2	2	5		2	5		3	2	68
60 years old or more	7	10	5	5	8	6	6	4	8	7	8	10	10	7	6	10	2	7	11	11	5	6	12	8	179
total	16	28	14	12	28	16	12	20	18	14	15	21	22	15	11	23	10	14	15	18	13	8	17	12	392

Workers' number of workplace of fatal accidents in building maintenance service in 1999-2022

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	2022	total
9 workers or less	3	5	2	3	10	8	3	7	5	3	4	8	3	3	5	7	3	3	6	2	2	2	2	1	100
10-29	4	7	9	3	8	4	2	6	5	3	4	2	5	2	2	3	1	4	3	6	2	1	1	3	90
30-49		1	1	1	4	1	1	1		2	1	2	5	2		3	2	2		3	4		1	4	41
50-99	4	7	1		1	1	1	1	3	1	2	3	1	2	1	5	2	1			1	2	3		43
100-299	3	6	1	1	3		3	3	3	4	3	4	6	2	1	3		1	2	4	2	2	4	1	62
300 workers or more	2	2		4	2	2	2	2	2	1	1	2	2	4	2	2	2	3	4	3	2	1	6	3	56
total	16	28	14	12	28	16	12	20	18	14	15	21	22	15	11	23	10	14	15	18	13	8	17	12	392

Month of fatal accidents in building maintenance service in 1999-2022

Month	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	total
January	2				3		2	1			2	3			1	1	1	4	2	4	2	2			30
February			1		2			2	2	4	2			1		1	2		2	2	1	1		2	25
March	2	2		2	2			1	3	1	1		17		1			2	1	2	1	1		1	40
April	3	1	3	1	3	2			1	1		1	1	4	1	1		1		1		1	3		29
May	1	3	2		3	2	2			2		1				2	3	2	1	3	1		2	1	31
June		5	1		2	1	2	3	1		2	2	2	2	2	4		1			2		1	1	34
July	2	1		1	3	1	1	1				5		1	1	1	1		1	2	1	1	3	3	30
August	2	3	1	2	2	4	1	4	2	3	2	2	2	3	3	1			1		1	1	2	3	45
September	1	3	3			1	1	2	1		1	1		1	1	3	1	1	1	1	1		4		28
October	1	8	2	3	2	1	1	3	2					2		3	1	3	1	1	3	1	2	1	41

November	1	1	1	2	2	1	2	1	4	1	2	3		1	1	2	1		1	1					28
December	1	1		1	4	3		2	2	2	3	3				4			4	1					31
total	16	28	14	12	28	16	12	20	18	14	15	21	22	15	11	23	10	14	15	18	13	8	17	12	392

Prefecture of fatal accidents in building maintenance service in 1999-2022

Prefecture	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	total
Hokkaido	1	2		1	1	2	1	1	1	2	3	1				1	1		1	2		1	1		23
Aomori		1																							1
Iwate									1				7			1	1								10
Miyagi					1							2	7					1							11
Akita							1																		1
Yamagata																									
Fukushima	1				1		2	3				1	1					1			1	1			12
Ibaraki		1						1									1								3
Tochigi					2			1			1	1		1	1	1				1	1			1	11
Gunma									1		1														2
Saitama		1	4			2		1	1	2		1	1	1	1	1		1		2			2	1	22
Chiba		2	2	1	3			1									1	1	1	1		1	1		15
Tokyo	6	9	3	3	9	4	3	2	6	3	3	3	5	6	1	6	3	2	6	4	8	1	2	3	101
Kanagawa		3	1	2	3	1	2	3		2	1	1		1	1	1	1	2	2	2	1		1	2	33
Niigata											1	1											2		4
Toyama	1		1		1	1						1													5

Ishikawa					1									2											3
Fukui																									
Yamanashi																									
Nagano	2								1										1	1				1	6
Gifu		1						1						1											3
Shizuoka				1	1			1	1	1						1				2					8
Aichi		2						1		2		2				2	1	1			1				12
Mie																									
Shiga			1													1		1							3
Kyoto							1		1						1				1				1		5
Osaka	1	2		1	2	2	1	1	1	2	1	2			1				1	1	1	2	2	3	27
Hyogo	1	2	1	1		1		1			1	1			1	2	1	1					3		17
Nara	1							1			1							1							4
Wakayama			1																						1
Tottori		1																							1
Shimane													1			1									2
Okayama														1	1										2
Hiroshima	1				1				1			1				3				1		1		1	10
Yamaguchi																									
Tokushima																									
Kagawa						1			1			1			1										4
Ehime							1									1		2							4
Kochi						1																			1

Fukuoka		1				1			1		1	1		1	1	1				1		1			10
Saga																									
Nagasaki					1														1						2
Kumamoto					1			1	1		1												1		5
Oita				1											1				1						3
Miyazaki				1																			1		2
Kagoshima	1																								1
Okinawa												1		1											2
total	16	28	14	12	28	16	12	20	18	14	15	21	22	15	11	23	10	14	15	18	13	8	17	12	392

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

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