

Fatal and non-fatal accidents in manufacturing in Japan in 1999-2022

manufacturing industry Code No.01

Type of accidents in manufacturing 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	4,104	4,138	4,193	3,856	3,778	3,755	3,706	3,791	3,677	3,540	3,085	2,876	2,833	2,926	2,727	2,840	2,811	2,882	2,842	3,031	2,975	2,943	2,944	2,867	79,120
falling to same level	5,141	4,991	5,333	4,824	5,133	4,973	5,165	5,356	5,175	5,265	4,614	4,627	4,758	4,869	4,755	4,884	4,681	4,977	5,088	5,637	5,070	5,094	5,332	5,757	121,499
crash	1,746	1,832	1,679	1,453	1,488	1,524	1,533	1,493	1,606	1,427	1,187	1,186	1,195	1,087	1,111	1,150	1,173	1,159	1,171	1,303	1,312	1,237	1,333	1,338	32,723
struck by flying or falling object	4,334	4,211	4,004	3,457	3,363	3,476	3,328	3,294	3,141	3,034	2,310	2,290	2,325	2,378	2,168	2,186	2,031	2,122	2,039	2,023	1,801	1,730	1,811	1,808	64,664
collapse	1,064	1,148	1,078	939	965	960	931	984	971	863	669	708	657	687	650	633	659	646	563	623	595	508	512	542	18,555
crashed by	2,046	1,842	1,859	1,710	1,549	1,594	1,604	1,589	1,638	1,569	1,092	1,181	1,098	1,095	1,033	1,165	1,135	1,085	1,129	1,174	1,203	1,040	1,160	1,070	32,660
caught in/between	14,529	14,399	13,429	12,432	12,301	12,017	11,383	11,110	10,716	10,011	8,007	8,228	8,290	8,077	7,626	7,668	7,214	7,017	7,159	7,044	6,959	6,209	6,501	6,416	224,742
cut	5,759	5,705	5,356	4,869	4,808	4,575	4,247	4,016	4,073	3,891	3,217	3,213	3,209	3,098	2,972	2,920	2,716	2,601	2,523	2,534	2,571	2,320	2,319	2,330	85,842
injury to the sole of the foot	72	61	73	75	35	44	55	63	57	38	31	33	40	40	34	41	51	51	42	43	31	32	29	22	1,093
drown	2	10	6	5	7	7	7	4	5	2	2	6	282	1	3	2	3	6	4	3	1	5	3	5	381
contact to high/low-temperature	1,134	1,195	1,152	1,061	1,056	1,083	982	1,034	972	1,013	834	947	880	872	954	896	794	866	908	983	911	885	813	843	23,068
contact to harmful substance	236	251	267	301	282	300	283	323	301	238	199	234	227	209	208	217	232	208	227	232	216	241	222	248	5,902
electric shock	59	63	72	51	43	56	49	39	42	42	30	40	37	38	39	29	34	38	28	39	27	24	30	32	981
explosion	87	88	58	58	90	64	59	46	77	59	38	40	37	54	35	57	19	30	33	25	38	30	27	20	1,169
burst	42	31	34	37	37	26	28	33	31	38	15	16	22	27	13	17	24	19	18	16	14	14	16	16	584

fire	53	49	55	43	46	54	54	63	45	48	50	42	29	35	44	39	43	37	17	32	31	35	27	35	1,006
traffic accident (public road)	607	631	578	559	521	515	479	470	469	401	358	461	375	352	364	313	326	323	299	323	306	245	265	236	9,776
traffic accident (others)	19	24	19	9	12	16	13	15	16	8	5	11	7	7	10	7	14	6	14	20	8	3	6	5	274
reaction to motion/improper motion	2,736	2,654	2,622	2,419	2,442	2,349	2,592	2,773	2,921	2,820	2,119	2,385	2,333	2,313	2,191	2,241	2,281	2,248	2,433	2,581	2,646	2,595	2,929	2,922	60,545
others	177	183	146	119	146	170	147	136	211	119	98	99	218	101	104	116	118	112	103	146	129	470	2,305	142	5,815
unclassifiable	51	47	55	46	43	35	49	38	52	38	35	20	20	25	36	31	32	21	34	30	29	15	21	40	843
total	43,998	43,553	42,068	38,323	38,145	37,593	36,694	36,670	36,196	34,464	27,995	28,643	28,872	28,291	27,077	27,452	26,391	26,454	26,674	27,842	26,873	25,675	28,605	26,694	771,242

Causal agents (large) of fatal and non-fatal accidents in manufacturing 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	15,572	15,318	14,050	12,958	12,766	12,319	11,646	11,190	10,896	10,248	8,241	8,432	8,444	8,220	7,737	7,613	7,273	6,975	6,974	6,895	6,784	6,190	6,296	6,145	229,182
crane, conveying machine	5,481	5,616	5,549	5,050	5,023	4,967	4,793	4,754	4,816	4,472	3,593	3,709	3,514	3,438	3,363	3,457	3,190	3,255	3,329	3,386	3,366	3,058	3,217	2,990	97,386
other equipment	6,729	6,742	6,755	6,159	6,240	6,327	6,374	6,218	6,496	6,325	5,152	5,159	5,207	5,127	5,109	5,118	5,034	5,175	5,097	5,178	5,406	5,084	5,421	5,480	137,112
temporary buildings, establishments	5,812	5,756	5,961	5,541	5,758	5,805	5,745	6,058	5,665	5,858	5,045	5,074	5,093	5,200	4,759	5,144	5,078	5,294	5,314	5,830	5,335	5,294	5,556	5,773	131,748
substance, material	6,211	5,920	5,642	5,063	4,721	4,720	4,490	4,613	4,456	3,923	3,065	3,089	3,044	3,066	2,930	2,971	2,797	2,707	2,773	2,742	2,574	2,335	2,441	2,572	88,865
load	2,148	2,207	2,215	1,918	1,875	1,790	1,837	1,951	2,017	1,844	1,435	1,492	1,478	1,479	1,385	1,337	1,385	1,416	1,335	1,517	1,430	1,372	1,499	1,487	39,849
environment	449	439	506	385	403	423	429	472	367	402	282	471	837	539	552	596	394	508	532	783	514	572	465	636	11,956
others	1,596	1,555	1,390	1,249	1,359	1,242	1,380	1,414	1,483	1,392	1,182	1,217	1,255	1,222	1,242	1,216	1,240	1,124	1,320	1,511	1,464	1,770	3,710	1,611	35,144
total	43,998	43,553	42,068	38,323	38,145	37,593	36,694	36,670	36,196	34,464	27,995	28,643	28,872	28,291	27,077	27,452	26,391	26,454	26,674	27,842	26,873	25,675	28,605	26,694	771,242

Causal agents (middle) of fatal and non-fatal accidents in manufacturing 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	24	36	34	22	26	26	16	16	20	15	20	14	12	19	10	8	13	6	17	18	13	7	11	11	414
power transmission mechanism	494	434	395	392	324	333	376	329	306	311	263	287	254	257	243	233	257	207	252	245	204	199	199	204	6,998
woodworking machine	2,614	2,489	2,164	1,918	1,940	1,706	1,611	1,467	1,450	1,288	1,086	1,082	1,077	988	922	978	844	818	762	778	760	706	719	634	30,801
construction machine	173	170	154	128	118	134	152	133	120	115	102	112	81	110	99	91	80	86	96	77	94	94	99	94	2,712
metal manufacturing machine	5,077	4,902	4,364	3,907	3,890	3,876	3,661	3,611	3,521	3,178	2,192	2,362	2,547	2,485	2,299	2,308	2,179	2,052	2,018	2,028	2,002	1,788	1,843	1,789	69,879
general machine	7,190	7,287	6,939	6,591	6,468	6,244	5,830	5,634	5,479	5,341	4,578	4,575	4,473	4,361	4,164	3,995	3,894	3,801	3,826	3,747	3,705	3,393	3,422	3,411	118,348
mobile silviculture machine																	6	5	3	2	6	3	3	2	30
crane	1,226	1,293	1,301	1,166	1,120	1,125	1,124	1,126	1,107	1,059	790	801	795	784	694	776	685	697	695	754	763	656	690	647	21,874
conveying machine	3,491	3,541	3,459	3,202	3,262	3,159	3,046	3,017	3,081	2,821	2,292	2,350	2,228	2,250	2,224	2,263	2,078	2,152	2,239	2,196	2,189	2,047	2,143	1,992	62,722
vehicle	764	782	789	682	641	683	623	611	628	592	511	558	491	404	445	418	427	406	395	436	414	355	384	351	12,790
pressure vessel	81	88	90	70	67	64	73	66	73	61	61	41	36	60	37	36	30	33	46	40	36	31	38	35	1,293
chemical facilities	33	37	20	37	32	38	37	30	27	28	20	16	24	24	13	24	19	26	19	29	22	14	33	22	624
welding equipment	279	279	272	252	222	241	239	225	242	235	180	126	141	170	174	175	145	172	154	145	141	138	135	147	4,629
kiln, caldron	158	180	180	144	169	164	133	126	137	147	130	146	104	101	134	123	105	100	124	104	134	121	114	116	3,194
electric equipment	98	95	96	81	80	100	87	71	80	97	65	70	75	71	57	55	71	61	62	71	62	64	64	84	1,817

machine			203		159		134	99	121	86	88	65	82	66	68	67	54	52	50	53	36	50	42	43	1,618
wood planer machine			216		180		152	135	125	142	120	114	129	75	89	95	69	67	67	69	80	66	71	58	2,119
hollow chisel mortiser, wood borer			66		41		33	29	44	32	23	21	23	22	33	21	24	23	19	21	13	16	6	20	530
chamfering machine, router, woodworking milling machine			92		87		53	42	57	54	34	27	35	30	32	33	27	25	22	34	22	22	23	13	764
chain saw			27		34		17	26	17	25	23	23	11	26	12	17	9	11	15	8	10	18	23	8	360
other woodworking machines			567		493		435	403	412	331	262	279	293	312	254	272	238	247	233	218	224	186	209	186	6,054
leveling, transporting or loading machine			49		39		36	25	29	32	29	34	37	34	32	25	26	24	27	18	30	28	32	21	607
excavating machine			48		34		65	48	49	35	39	43	16	35	34	31	22	20	35	25	31	27	33	24	694
foundation work machine			2		5		6	3	2	3	3	1	2	2	2	1	4	2	2	4	2	2	2	3	53
hardening machine			5		2		2	3	3	1	1	3	2	1	1	1	2	1	2	1	1	2	2	2	38
demolition machine			6		1		5	9	7	3	2	5		3		5	4	12	8	8	5	7	7	15	112
vehicle for high lift work			13		9		12	14	14	14	10	13	7	14	11	5	9	9	13	6	14	16	6	15	224
other construction machines			31		28		26	31	16	27	18	13	17	21	19	23	13	18	9	15	11	12	17	14	379
lathe			505		413		380	420	350	363	275	290	292	322	263	224	276	231	202	240	217	213	225	181	5,882
drill press, milling machine			649		536		529	497	482	453	298	309	299	275	292	292	302	270	215	235	219	212	202	216	6,782

grinding machine, buffing machine			546		475		473	465	519	478	341	367	413	358	345	347	330	335	306	318	339	295	301	289	7,640
power press			1,100		1,092		1,005	948	890	768	512	549	629	634	565	587	545	498	533	490	488	426	430	460	13,149
forging pressure hammer			25		15		25	19	17	26	15	18	12	10	12	11	11	11	11	10	12	8	9	16	293
shearing machine			173		189		153	136	170	146	128	120	104	120	88	113	87	104	79	82	77	68	69	68	2,274
other metal manufacturing machines			1,366		1,170		1,096	1,126	1,093	944	623	709	798	766	734	734	628	603	672	653	650	566	607	559	16,097
centrifugal machine			18		13		11	18	15	18	12	11	13	10	14	14	14	11	9	12	15	12	11	14	265
mixer, grinder			271		242		204	204	209	193	165	142	162	188	175	166	152	144	136	129	142	151	140	133	3,448
roll machine (except printingroll machine)			606		564		521	496	478	466	415	438	375	403	398	385	351	326	375	328	314	318	287	304	8,148
injection molding machine			191		201		172	141	159	105	115	116	87	102	96	72	71	69	70	91	72	67	80	63	2,140
food manufacturing machine			1,785		1,652		1,612	1,381	1,358	1,437	1,324	1,317	1,280	1,293	1,206	1,130	1,112	1,133	1,118	950	1,046	953	938	968	24,993
printing machine			507		452		404	401	376	371	320	298	291	284	259	247	204	215	210	190	171	172	201	168	5,741
industrial robot			22		40		32	33	48	30	24	23	26	27	24	25	21	24	25	20	20	20	25	20	529
other general power machines			3,539		3,304		2,874	2,960	2,836	2,721	2,203	2,230	2,239	2,054	1,992	1,956	1,969	1,879	1,883	2,027	1,925	1,700	1,740	1,741	45,772
felling machine																3	5	1		5	2	2	1	19	
mobile logging machine																2		1	1	1			1	1	7
skyline yarding machine																									
other mobile																1		1	1		1				4

other vehicles			68		57		44	48	51	50	61	35	32	38	28	43	32	30	26	42	30	26	36	28	805
boiler			12		10		17	17	23	9	13	10	7	7	8	8	4	4	8	7	7	5	5	7	188
pressure vessel			45		31		30	29	24	28	27	16	19	31	17	12	20	15	24	12	20	17	17	12	446
other pressure vessels			33		26		26	20	26	24	21	15	10	22	12	16	6	14	14	21	9	9	16	16	356
chemical facilities			20		32		37	30	27	28	20	16	24	24	13	24	19	26	19	29	22	14	33	22	479
gas welding equipment			59		45		52	38	52	45	55	27	39	42	34	30	31	31	37	34	30	26	15	28	750
arc welding equipment			79		70		87	88	100	88	76	48	57	60	67	62	48	76	52	55	49	56	54	48	1,320
other welding equipment			134		107		100	99	90	102	49	51	45	68	73	83	66	65	65	56	62	56	66	71	1,508
kiln, caldron			140		133		102	94	108	118	93	120	75	80	105	91	83	70	95	76	105	89	95	93	1,965
industrial dryer			24		18		25	17	14	22	24	18	22	15	20	25	12	11	21	13	21	20	14	17	373
other kiln, caldron			16		18		6	15	15	7	13	8	7	6	9	7	10	19	8	15	8	12	5	6	210
transmission			28		20		28	29	37	28	29	14	20	30	25	16	35	27	32	31	34	34	32	54	583
electric power facilities			26		29		20	16	23	33	18	29	16	18	12	12	18	12	10	18	8	12	15	12	357
other electrical equipment			42		31		39	26	20	36	18	27	39	23	20	27	18	22	20	22	20	18	17	18	503
human power cranes			46		45		39	42	38	39	22	27	32	26	19	23	24	25	27	24	123	130	210	303	1,264
human power hauling equipment			778		801		872	825	888	886	695	764	787	787	764	802	800	873	830	879	897	842	811	750	16,331
human power machine			84		59		42	46	53	46	36	45	39	37	37	54	46	35	44	34	32	32	23	36	860
hand tool			1,383		1,279		1,154	1,112	1,219	1,095	945	917	895	926	919	853	774	752	746	777	755	690	751	799	18,741
ladder			1,207		1,140		1,057	1,087	1,132	1,062	957	909	911	898	889	860	886	907	882	955	955	958	1,004	953	19,609

slinging tool			461		388		403	380	405	358	290	283	286	251	274	261	250	259	226	230	245	183	201	210	5,844
other tools			1,179		1,099		1,211	1,254	1,241	1,319	971	993	1,077	966	998	991	1,066	1,106	1,126	1,088	1,223	1,116	1,137	1,137	22,298
other equipment, facilities			959		859		1,027	954	961	952	780	822	800	810	794	861	818	826	811	802	781	765	900	888	17,170
scaffolding			140		134		127	114	139	112	90	74	74	85	63	87	82	80	72	77	90	69	54	54	1,817
timbering			14		14		13	6	10	13	8	5	10	11	7	9	8	5	2	5	6	11	9	2	168
stairs, landing stage			971		933		881	936	922	942	793	736	754	791	743	802	783	800	834	889	925	932	950	984	17,301
opening			95		87		88	95	88	85	83	71	80	100	63	75	63	74	68	76	82	89	73	76	1,611
roof, beam, haze, crossbeam, principal rafter			117		102		98	97	66	83	65	72	83	77	59	61	50	61	55	73	52	48	57	45	1,421
working platform, boot board			1,013		1,085		986	1,075	1,007	1,068	892	926	873	877	779	911	915	891	835	836	845	749	763	791	18,117
passage			2,303		2,127		2,299	2,392	2,165	2,349	2,113	2,112	2,188	2,239	2,119	2,243	2,203	2,388	2,461	2,801	2,398	2,466	2,698	2,834	46,898
building, establishment			815		761		744	821	824	773	622	672	642	581	553	538	582	570	610	599	485	472	514	553	12,731
other temporary buildings, establishments			493		515		509	522	444	433	379	406	389	439	373	418	392	425	377	474	452	458	438	434	8,770
explosive substance			29		37		28	11	10	10	11	8	9	8	15	15	7	6	8	7	4	4	9	7	243
inflammable substance			82		93		79	91	80	67	60	66	56	52	55	62	57	51	43	36	48	38	42	39	1,197
inflammable gas			34		30		26	27	34	31	12	18	27	23	18	29	14	14	20	23	19	14	12	14	439
harmful substance			172		161		187	208	177	141	110	139	147	131	141	140	154	132	124	131	110	99	107	101	2,812
radiation					1					1								1					2		5
other hazards, harmful substances			218		193		158	176	182	154	144	134	159	133	170	150	141	154	164	140	158	162	164	167	3,221
metal material			3,503		2,899		2,841	2,894	2,867	2,573	1,946	1,894	1,851	1,922	1,736	1,842	1,716	1,702	1,730	1,736	1,607	1,432	1,468	1,591	41,750

lumber, bamboo			790		628		560	511	491	383	312	311	299	299	319	280	268	262	243	264	231	242	246	219	7,158
stone, sand, substance			198		148		119	115	89	97	73	72	65	76	63	86	71	50	54	45	43	36	37	38	1,575
other materials			616		531		492	580	526	466	397	447	431	422	413	367	369	335	387	360	354	308	354	396	8,551
load			1,892		1,623		1,596	1,696	1,771	1,625	1,260	1,320	1,317	1,317	1,232	1,214	1,247	1,276	1,231	1,381	1,304	1,259	1,387	1,367	28,315
machine/equipment as load			323		252		241	255	246	219	175	172	161	162	153	123	138	140	104	136	126	113	112	120	3,471
natural ground, rock			33		34		32	40	34	31	17	29	22	26	22	17	24	24	17	35	22	25	19	26	529
standing tree			26		27		16	23	15	17	20	22	18	18	17	22	10	11	20	22	21	16	10	14	365
water			27		39		34	47	33	34	21	19	374	31	34	32	18	30	26	30	31	41	15	14	930
abnormal environment			8		7		4	12	13	9	12	6	7	8	13	6	2	3	8	13	5	14	4	7	161
high/cold temperature environment			142		90		94	128	110	122	77	214	142	160	173	180	141	163	174	319	249	267	172	241	3,358
other environments			270		206		249	222	162	189	135	181	274	296	293	339	199	277	287	364	186	209	245	334	4,917
other causal agent			427		343		339	354	375	333	221	218	305	252	305	284	278	235	276	291	274	578	2,425	260	8,373
no causal agent			879		942		970	1,005	1,036	994	899	966	917	929	893	891	923	861	1,006	1,158	1,154	1,176	1,263	1,314	20,176
unclassifiable			84		74		71	55	72	65	62	33	33	41	44	41	39	28	38	62	36	16	22	37	953
total	43,998	43,553	42,068	38,323	38,145	37,593	36,694	36,670	36,196	34,464	27,995	28,643	28,872	28,291	27,077	27,452	26,391	26,454	26,674	27,842	26,873	25,675	28,605	26,694	771,242

Workers age of fatal and non-fatal accidents in manufacturing 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	1,358	1,341	1,237	1,091	1,114	1,026	1,010	878	872	731	588	594	624	641	647	642	585	545	530	520	523	477	465	423	18,462
20-29	7,883	8,003	7,773	6,778	6,745	6,619	6,332	6,240	5,947	5,590	4,261	4,452	4,519	4,344	4,059	4,225	3,944	3,814	3,946	3,880	3,891	3,583	4,353	3,803	124,984

June	3,832	3,730	3,664	3,053	3,341	3,372	3,227	3,084	3,097	2,885	2,290	2,549	2,525	2,412	2,158	2,297	2,374	2,246	2,315	2,390	2,266	2,239	2,393	2,462	66,201
July	3,940	3,754	3,758	3,600	3,386	3,421	3,236	3,145	3,259	3,178	2,462	2,586	2,449	2,451	2,505	2,438	2,463	2,249	2,326	2,607	2,572	2,216	2,422	2,347	68,770
August	3,611	3,647	3,355	3,078	3,119	3,011	3,197	3,118	3,133	2,667	2,236	2,410	2,397	2,430	2,209	2,195	2,074	2,206	2,265	2,277	2,199	2,133	2,826	2,106	63,899
September	3,916	3,755	3,370	3,269	3,323	3,275	3,133	3,080	2,918	2,905	2,348	2,505	2,507	2,280	2,239	2,383	2,166	2,240	2,200	2,183	2,291	2,097	2,508	2,297	65,188
October	3,659	3,823	3,620	3,514	3,358	3,323	3,076	3,149	3,167	2,986	2,406	2,431	2,418	2,284	2,462	2,380	2,302	2,206	2,310	2,479	2,299	2,297	2,269	2,191	66,409
November	3,498	3,511	3,241	3,219	2,921	2,950	2,961	3,017	2,849	2,619	2,254	2,383	2,376	2,235	2,335	2,145	2,114	2,197	2,179	2,286	2,194	2,011	2,218	2,124	61,837
December	3,358	3,388	3,085	2,817	2,859	2,830	2,791	2,789	2,699	2,423	2,209	2,177	2,319	2,132	2,102	2,146	2,011	1,999	2,111	2,089	2,069	2,245	2,182	2,133	58,963
total	43,998	43,553	42,068	38,323	38,145	37,593	36,694	36,670	36,196	34,464	27,995	28,643	28,872	28,291	27,077	27,452	26,391	26,454	26,674	27,842	26,873	25,675	28,605	26,694	771,242

Prefecture of fatal and non-fatal accidents in manufacturing 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	1,955	2,088	1,988		1,739		1,648	1,624	1,634	1,464	1,309	1,284	1,238	1,188	1,231	1,160	1,187	1,227	1,202	1,202	1,104	1,144	1,217	1,156	30,989
Aomori	362	312	313		296		267	268	280	262	211	224	251	259	217	254	214	219	243	244	209	231	243	233	5,612
Iwate	496	498	508		398		399	376	355	356	280	321	352	308	279	320	298	281	273	298	266	275	324	317	7,578
Miyagi	718	689	643		606		614	626	571	607	457	474	661	460	471	452	421	474	473	502	465	464	543	440	11,831
Akita	357	381	298		241		233	257	256	251	215	200	209	225	208	203	183	193	201	247	219	191	218	214	5,200
Yamagata	451	428	453		388		364	398	376	355	256	281	308	331	333	299	299	310	282	323	297	287	314	314	7,447
Fukushima	698	720	689		585		603	609	604	562	433	461	498	477	481	452	426	451	420	448	454	414	534	491	11,510
Ibaraki	1,099	1,157	1,145		987		961	958	983	972	784	823	847	873	790	838	813	782	850	894	884	833	888	848	20,009
Tochigi	798	751	723		707		678	627	603	623	506	498	534	603	537	544	546	569	524	551	548	503	603	499	13,075
Gunma	1,188	1,133	1,080		989		955	972	949	865	713	730	760	751	727	800	709	772	697	792	729	731	784	772	18,598
Saitama	1,950	1,961	1,987		2,004		1,946	1,891	1,942	1,862	1,525	1,526	1,406	1,486	1,383	1,504	1,401	1,407	1,396	1,427	1,464	1,366	1,620	1,433	35,887
Chiba	1,399	1,372	1,331		1,163		1,102	1,205	1,196	1,165	1,097	1,077	985	1,043	976	971	1,006	969	904	1,012	905	910	1,074	939	23,801
Tokyo	1,652	1,527	1,480		1,350		1,240	1,177	1,105	1,119	897	865	847	810	750	726	696	696	639	735	712	621	674	613	20,931
Kanagawa	1,727	1,710	1,595		1,468		1,523	1,494	1,373	1,367	1,103	1,169	1,122	1,126	1,035	1,076	1,005	1,012	1,022	1,044	1,061	924	1,109	1,092	27,157
Niigata	1,104	1,052	1,070		934		856	943	881	840	663	750	748	706	705	721	676	679	764	723	706	700	810	695	17,726

Nagasaki	529	473	463		399		388	429	375	358	348	371	363	356	317	364	323	343	328	327	353	344	309	307	8,167
Kumamoto	596	555	530		513		486	473	524	428	389	369	374	339	369	350	371	358	365	385	393	368	412	400	9,347
Oita	470	471	443		411		340	405	367	371	313	295	265	279	240	258	258	247	244	276	234	245	235	241	6,908
Miyazaki	476	419	440		388		368	356	365	343	324	353	324	333	299	268	286	303	276	277	280	302	349	302	7,431
Kagoshima	545	521	519		434		458	453	390	384	372	347	371	357	356	351	321	382	377	370	385	378	384	376	8,831
Okinawa	177	174	177		159		156	137	152	143	145	151	150	171	170	160	124	167	159	153	168	171	203	199	3,566
total	43,998	43,553	42,068	38,323	38,145	37,593	36,694	36,670	36,196	34,464	27,995	28,643	28,872	28,291	27,077	27,452	26,391	26,454	26,674	27,842	26,873	25,675	28,605	26,694	771,242

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 manufacturing in Japan in 1999-2022

manufacturing industry Code No.01

Type of fatal accidents in manufacturing 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	54	41	60	43	41	48	36	46	46	40	32	40	31	38	24	26	26	25	28	29	23	21	25	23	846
falling to same level	10	6	8	4	4	4	7	4	9	5	5	6	8	7	9	5	7	6	2	6	5	6	2	1	136
crash	1	1	2		4	1	2	5	1	6	1		2		4	2			2			1	2	1	38
struck by flying or falling object	24	25	25	21	24	29	23	33	19	26	16	14	11	14	20	12	10	14	7	12	8	11	10	9	417
collapse	21	22	25	11	17	14	20	20	30	20	5	14	16	18	7	9	17	14	9	20	8	7	2	10	356
crashed by	27	25	25	24	14	23	23	20	17	19	10	13	10	6	12	18	13	13	16	15	14	7	11	6	381

caught in/between	104	106	85	103	91	95	69	79	77	83	65	68	55	63	61	64	50	62	51	48	49	45	54	56	1,683
cut	1		1	2	6	2	2	1			1	1	3	1		1				1	1	1		1	26
injury to the sole of the foot	1			1	1	1		1	1							1		1							8
drown	1	7	6	3	7	6	6	5	5	2	3	3	274	1	1	2	2	5	3	4	1	4	2	4	357
contact to high/low-temperature	14	5	14	5	9	6	8	3	13	11	2	12		6	12	2	6	3	6	8	5	7	4	3	164
contact to harmful substance	13	14	8	15	11	12	9	12	6	6	14	5	8	8	9	5	6	3	8	12	4	8	6	3	205
electric shock	8	11	7	3	7	3	4	5	3	5	4	6	6	4	3	3	1	2	3	3	1		2	2	96
explosion	8	7	5	3	17	8	4	3	7	7	8	2	4	6	10	9		1	5	4	3	2	2	3	128
burst	2	1	2	1				3		2				3	1		1	3	1						20
fire	3	7	9	3	8	2	2	5	7	2	2		2	5	4	1	5	1	3	4	4	4		9	92
traffic accident (public road)	50	43	41	30	29	26	28	18	16	16	15	18	12	13	16	12	5	9	10	10	8	6	7	7	445
traffic accident (others)		1		1		1	2		1																6
reaction to motion/improper motion															1			1							2
others	2	1	1	2	2	11	8	5	6	9	2	8	79	6	6	8	10	13	6	7	7	6	8	2	215
unclassifiable			2		1	1	3			1	1	1	1		1		1	1							14
total	344	323	326	275	293	293	256	268	264	260	186	211	522	199	201	180	160	177	160	183	141	136	137	140	5,635

Causal agents (large) of fatal accidents in manufacturing 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	80	84	72	64	69	63	52	65	53	67	44	43	35	46	50	50	36	36	36	31	34	33	34	32	1,209
crane, conveying machine	133	115	108	108	105	106	91	70	80	72	63	76	63	55	55	66	36	65	52	51	44	37	48	44	1,743
other equipment	36	36	44	33	32	37	30	39	43	47	27	22	21	26	26	22	23	29	19	30	15	17	11	20	685
temporary buildings, establishments	38	26	41	25	26	28	23	32	30	20	21	30	20	29	16	13	21	15	19	15	12	18	15	18	551
substance, material	31	43	36	29	39	28	29	32	33	25	17	14	21	22	27	13	20	9	21	23	10	5	11	10	548
load	8	9	13	6	11	11	9	13	11	7	2	5	5	6	3	3	4	5	2	5	6	2	5	9	160

environment	11	10	9	7	8	8	10	12	7	12	7	13	346	8	16	5	8	5	5	20	6	16	4	4	557
others	7		3	3	3	12	12	5	7	10	5	8	11	7	8	8	12	13	6	8	14	8	9	3	182
total	344	323	326	275	293	293	256	268	264	260	186	211	522	199	201	180	160	177	160	183	141	136	137	140	5,635

Causal agents (middle) of fatal accidents in manufacturing 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	2				1																				3
power transmission mechanism	1	7	2	2	3	3		4	1	4	2	1		1	3	2	1	4		1			1	1	44
woodworking machine	8	10	11	4	4	5	6	3	5	4	1	1	6	2	3	3		1	6	6	2	2	2	2	98
construction machine	8	4	5	5	4	7	6	6	7	8	6	4	1	3	5	4	3	2	4	1	5	2	2	1	103
metal manufacturing machine	15	18	15	17	13	13	8	21	13	12	6	15	6	16	18	13	5	9	5	5	5	9	10	10	277
general machine	46	45	39	36	44	35	32	31	27	39	29	22	22	24	21	28	24	21	26	18	18	20	19	18	684
mobile silviculture machine																									
crane	22	24	27	26	29	22	22	20	25	19	14	19	15	12	11	11	10	25	13	11	16	8	14	12	427
conveying machine	81	66	56	58	54	65	39	41	45	44	38	51	39	36	38	45	24	32	32	35	23	26	31	27	1,026
vehicle	30	25	25	24	22	19	30	9	10	9	11	6	9	7	6	10	2	8	7	5	5	3	3	5	290
pressure vessel	1	2	3	1		1	1	5	2			1		1					2	1					21
chemical facilities			4	1						2	5		2	1	2	3	1	2		1		1		1	26
welding equipment	2	3	3	1	4	1	2	1	4	4		1	1	4	1	1	6	4	2	2		1	1	1	50
kiln, caldron	4		7	4	3	6	2	2	10	2	3			3	4	2	1	4	3		2	1	1	8	72
electric equipment	3	6	3	2	2	2	3	3	1	4	3	2	4	2	3						1		2	1	47
human power machine, tools	3	3	3	3		3	4	3	2	3				3			1	2		2	2	1	1		39
tools	16	13	16	15	14	15	12	20	16	23	13	9	10	6	8	7	4	10	9	15	3	8	3	6	271
other equipments, facilities	7	9	5	6	9	9	6	5	8	9	3	9	4	6	8	9	10	7	3	9	7	5	3	3	159
temporary buildings, establishments	38	26	41	25	26	28	23	32	30	20	21	30	20	29	16	13	21	15	19	15	12	18	15	18	551
hazards, harmful substances	16	25	12	15	27	18	11	16	18	9	11	6	10	11	13	7	5	3	10	12	6	2	6	3	272

materials	15	18	24	14	12	10	18	16	15	16	6	8	11	11	14	6	15	6	11	11	4	3	5	7	276
load	8	9	13	6	11	11	9	13	11	7	2	5	5	6	3	3	4	5	2	5	6	2	5	9	160
natural environment	11	10	9	7	8	8	10	12	7	12	7	13	346	8	16	5	8	5	5	20	6	16	4	4	557
other causal agent	6			1	1	11	3	3		2	3	1	1			1				1	1	4	6	45	
no causal agent				2	1		6	1	7	7		7	9	7	6	7	10	13	6	5	8	2	2	2	108
unclassifiable	1		3		1	1	3	1		1	2		1		2		2			2	5	2	1	1	29
total	344	323	326	275	293	293	256	268	264	260	186	211	522	199	201	180	160	177	160	183	141	136	137	140	5,635

Causal agents (small) of fatal accidents in manufacturing 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	2				1																				3
power transmission mechanism	1	7	2	2	3	3		4	1	4	2	1		1	3	2	1	4		1			1	1	44
circular sawing machine	3	4	2	1	2	3	1		1	2	1		1	1			1				1			1	25
band sawing machine	2		2		2		1	2	1			1	2			3				1	1				18
wood planer machine			1				1														1				3
hollow chisel mortiser, wood borer									1																1
chamfering machine, router, woodworking milling machine	1	1	1						1				1												5
chain saw		1																							1
other woodworking machines	2	4	5	3		2	3	1	1	2			2	1	3		2		1	5	3	2	2	1	45
leveling, transporting or loading machine	4	2	2	3	1	3	4	2	4	5	4	1		1	2	3		1	1		4	2	1	1	51
excavating machine	2		1			2	1	1			1	1	1		3		2	1							16
foundation work machine					1		1										1								3
hardening machine																									
demolition machine										1	1									1					3
vehicle for high lift work	2	1	2	1	1	2		2	3	2				1		1			1		1				20
other construction machines		1		1	1			1				2		1					1	1			1		10

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	82	74	67	62	72	79	44	56	56	62	37	51	163	42	46	32	39	38	28	44	25	32	34	31	1,296
10-29	95	94	102	70	82	87	87	75	77	59	50	48	131	52	49	56	50	42	51	56	40	30	33	34	1,550
30-49	45	48	57	38	42	28	34	42	38	40	29	32	97	28	29	25	22	30	25	17	15	17	15	22	815
50-99	37	40	39	33	39	27	32	39	32	26	18	22	55	25	20	23	15	22	20	17	24	15	21	16	657
100-299	41	28	35	36	34	45	25	32	27	37	33	35	50	25	34	32	20	33	25	28	22	25	19	24	745
300 workers or more	44	39	26	36	24	27	34	24	34	36	19	23	26	27	23	12	14	12	11	21	15	17	15	13	572
total	344	323	326	275	293	293	256	268	264	260	186	211	522	199	201	180	160	177	160	183	141	136	137	140	5,635

Month of fatal accidents in manufacturing 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	24	24	42	30	28	20	23	24	30	28	21	23	11	25	12	16	15	14	15	14	16	11	8	19	493
February	31	30	23	13	23	18	17	30	26	20	19	9	15	16	12	24	13	21	22	16	6	5	17	19	445
March	36	34	26	26	22	30	29	23	32	25	12	19	361	18	18	15	13	21	14	10	18	8	10	13	833
April	21	22	24	21	28	31	26	23	11	25	15	12	18	12	13	16	9	22	13	12	7	13	6	15	415
May	24	19	26	22	17	22	21	22	20	20	17	18	21	16	11	15	20	11	16	8	13	10	14	4	407
June	28	29	22	32	20	24	25	15	16	20	15	17	16	11	23	9	6	13	6	15	15	11	14	13	415
July	31	39	27	25	29	22	18	24	19	24	15	15	13	17	30	14	20	11	14	21	9	17	15	9	478
August	39	34	35	11	22	31	25	25	27	23	10	24	15	25	17	17	16	12	17	17	8	10	15	11	486
September	39	31	24	19	23	22	21	20	25	16	16	14	17	14	17	10	17	15	8	11	20	11	13	7	430
October	21	21	30	23	28	29	15	19	23	22	11	15	8	8	18	14	15	11	11	27	10	17	3	14	413
November	25	22	25	29	26	22	20	24	15	13	16	25	14	21	16	9	9	15	12	15	7	8	11	8	407
December	25	18	22	24	27	22	16	19	20	24	19	20	13	16	14	21	7	11	12	17	12	15	11	8	413
total	344	323	326	275	293	293	256	268	264	260	186	211	522	199	201	180	160	177	160	183	141	136	137	140	5,635

Prefecture of fatal accidents in manufacturing 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	10	13	20	16	15	14	16	10	8	9	3	5	4	8	6	4	7	7	8	11	10	6	3	4	217
Aomori	1		4			3	1		5	4	2	2	1	1		2	1	2	1	4	2		3	2	41
Iwate	5	1	2	2	1	7	3	7	2	1	1	3	70	4	1	2	2	3	3	2		2	2	3	129
Miyagi	4	6	8	5	4	7	4	6	1	5	3		249	3	3	1	3	4	1	4	1	5	1	4	332
Akita	4	2	4	2		1	2	1	2	3	2	1	3	1	3		2	2	2	1		1	2	2	43
Yamagata	6	2	4	4		4	1	1	2	6	2	3	2		3	2	2	2	1	2		1	2	1	53
Fukushima	8	4	5	5	8	6	6	2	8	7	1	5	28	2	1	6	1	2	2	2	5	2	3	4	123
Ibaraki	17	10	13	8	6	6	11	2	10	10	7	6	2	7	7	9	2	4	2	3	11	2	3	8	166
Tochigi	5	6	9	6	6	5	5	7	1	7	7	5	2	3	1	5	3	1	3	2	4	2	2	3	100
Gunma	6	12	14	6	2	4	3	7	6	4	5	4	1	2	7	5	3	3	7	3	1	2	5	3	115
Saitama	12	14	13	14	13	12	12	6	10	5	6	10	6	15	10	7	6	9	3	8	4	4	5	6	210
Chiba	12	13	13	18	11	15	11	9	15	13	6	10	8	7	9	11	11	7	8	10	3	8	3	2	233
Tokyo	11	8	8	9	3	7	6	4	3	5	3	6	5	9	4	5	4	5		3	7	1	5	2	123
Kanagawa	12	14	12	9	16	5	11	8	16	6	6	8	8	13	5	8	4	3	6	6	2	5	8	2	193
Niigata	7	6	1	7	5	6	6	8	8	5	4	4	3	2	9	3	2	4	1	4	1		5	8	109
Toyama	7	6	2	5	8	4	5	6	2	6	1	2	1	3	3	2	3	6	1	6	6	3	1	1	90
Ishikawa	1	1	2	6	1	4	1	3	1	3	4	3	2		1	2		2	2	3		2		2	46
Fukui	3	2	2	2	2	1			4	4	2	2	1	2	8	3		3		4	7	1		4	57
Yamanashi	1	2	4	5	2	2	1	2	2	5	2	2	4		1	2	1	1	3	3	1	1	2	1	50
Nagano	6	9	6	4	2	8	2	5	3			4	5	2	2	1	3	4	3	4	3	4	1	3	84
Gifu	15	6	4	10	9	10	4	4	4	10	6	4	5	4	10	2	9	4	4	3	2	2	10	2	143
Shizuoka	16	25	13	8	15	12	9	12	8	14	9	9	10	4	10	7	9	8	13	7	5	6	7	7	243
Aichi	23	23	24	13	26	21	18	28	23	18	7	10	11	18	17	14	7	9	11	20	9	11	12	8	381
Mie	7	8	7	6	6	10	9	6	7	6	7	10	3	6	5	5	5	1	3	2	1	1	4	1	126
Shiga	7	12	2		6	5	6	4	4	3	4	4	2	2	2	1	1	5	4	2	4	5	5	3	93

Kyoto	6	5	6	4	5	5		10	2	7	3	4	4		3	2	2		3	1	1	1	2		76
Osaka	20	22	21	16	21	24	18	31	20	14	14	12	14	14	14	10	11	11	11	10	6	9	4	12	359
Hyogo	15	12	29	17	18	13	14	18	17	8	8	19	11	9	7	13	10	13	8	6	6	5	8	8	292
Nara	3	2	3		3	4	1	1	3	2	2	2	1	1	2	1	1	7	1	2	2	1			45
Wakayama	8	4	4	1		3	6	5	5	3		1	3	2	1	3	3	3	2	2		1	1	3	64
Tottori		1	1				5	2	2		1	1	1					1	1	1		1	1		19
Shimane	2	4	1	2	4		3		1		1	1	3	1	3				1	1		1		2	31
Okayama	7	6	10	4	6	6	3	4	7	5	4	5	4	7	6	1	5	4	5	5	2	3	1	3	113
Hiroshima	13	11	7	8	10	17	9	11	6	19	5	10	6	5	5	5	5	6	8	12	10	5	3	5	201
Yamaguchi	5	3	3	11	5	2	5	3	6	5	5	2	3	4	4	2	5	3	3	3	1	1	4	3	91
Tokushima	4	8	3	2	2	1	1			1	3	3	2	1	2	3		3	1	2	2			1	45
Kagawa	5	2	3	6	6	4	3	2	5	3	1		7	7	5	2	2	2	2		1	5	3	2	78
Ehime	8	8	10	4	7	7	8	4	8	9	7	5	4	5	5	2	4	6	5	2	3	6	1	4	132
Kochi	5	1	2	2		4	3		3		3	2		1	2	1	1			2	3		2	2	39
Fukuoka	13	10	5	11	18	10	6	8	3	8	8	6	7	9	4	8	7	5	7	4	4	6	5	1	173
Saga	2	1	3		2	1		2	1	1	1		1		2	2	1			3	1	4	1		29
Nagasaki	2	3	4	6	1	1	5	6	2	2	4	4	5	3	2	4	2	1	2	2	2	5		1	69
Kumamoto	2	5	6	2	1	3	2	4	4	5	4	5	2	2	2		5	4	1	3	3	1			66
Oita	8	4		3	3	3	5	5	3	4	9	2	3	4	2	5	2	3	3	1	2	1	2	3	80
Miyazaki	4	2	6	2	4	2	3	1	2	1	2	4	1	1		2	1	2	2	1		1	1	4	49
Kagoshima	3	2	2	3	9	4	2	2	6	3	1	1	3	3	1	4	2	2	1	1	2	2	2		61
Okinawa	3	2	1	1	1		1	1	3	1			1	2	1	1			1		1		2		23
total	344	323	326	275	293	293	256	268	264	260	186	211	522	199	201	180	160	177	160	183	141	136	137	140	5,635

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

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