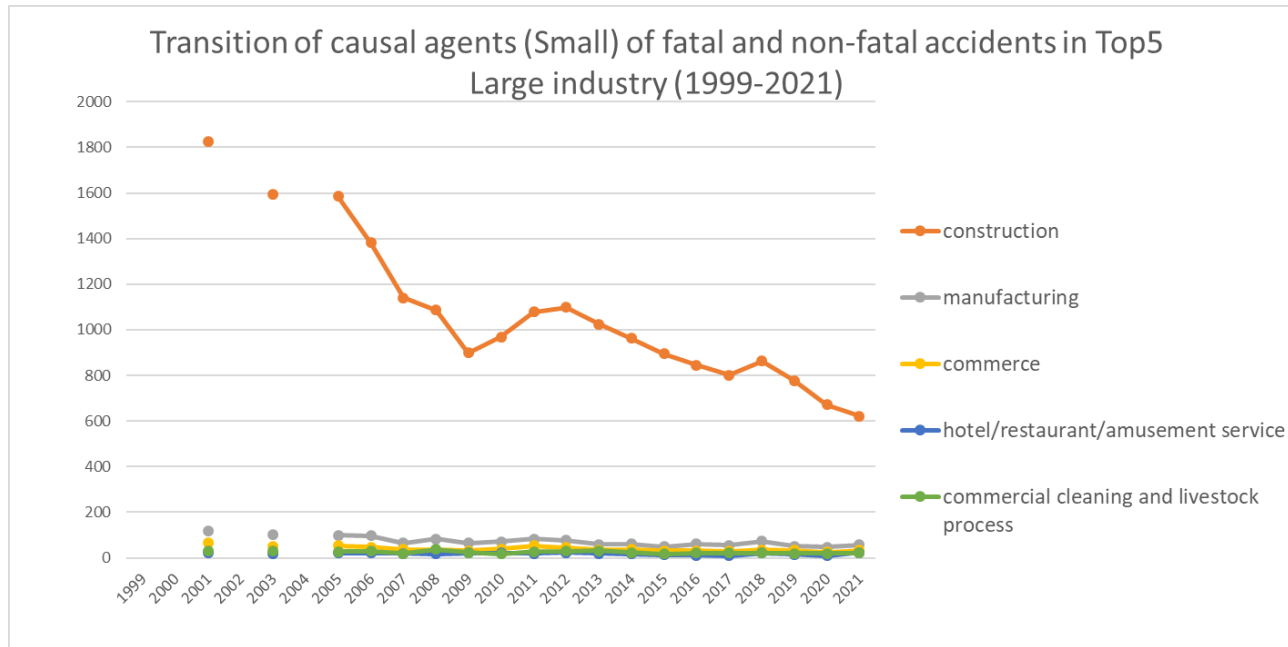
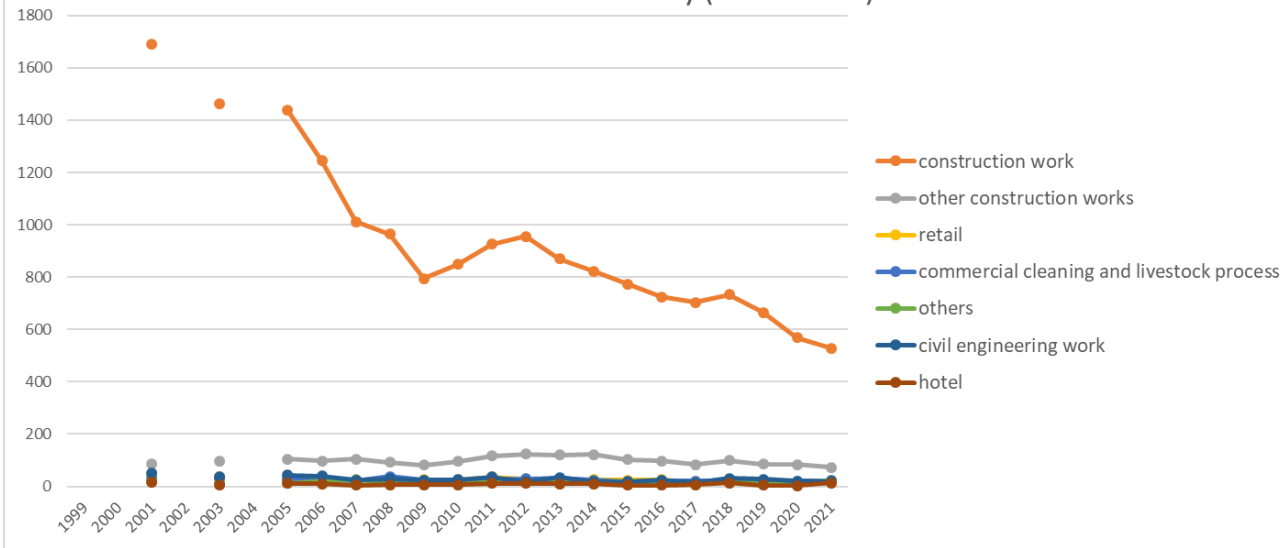


Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 415 roof, beam, haze, crossbeam, principal rafter (1999-2021)



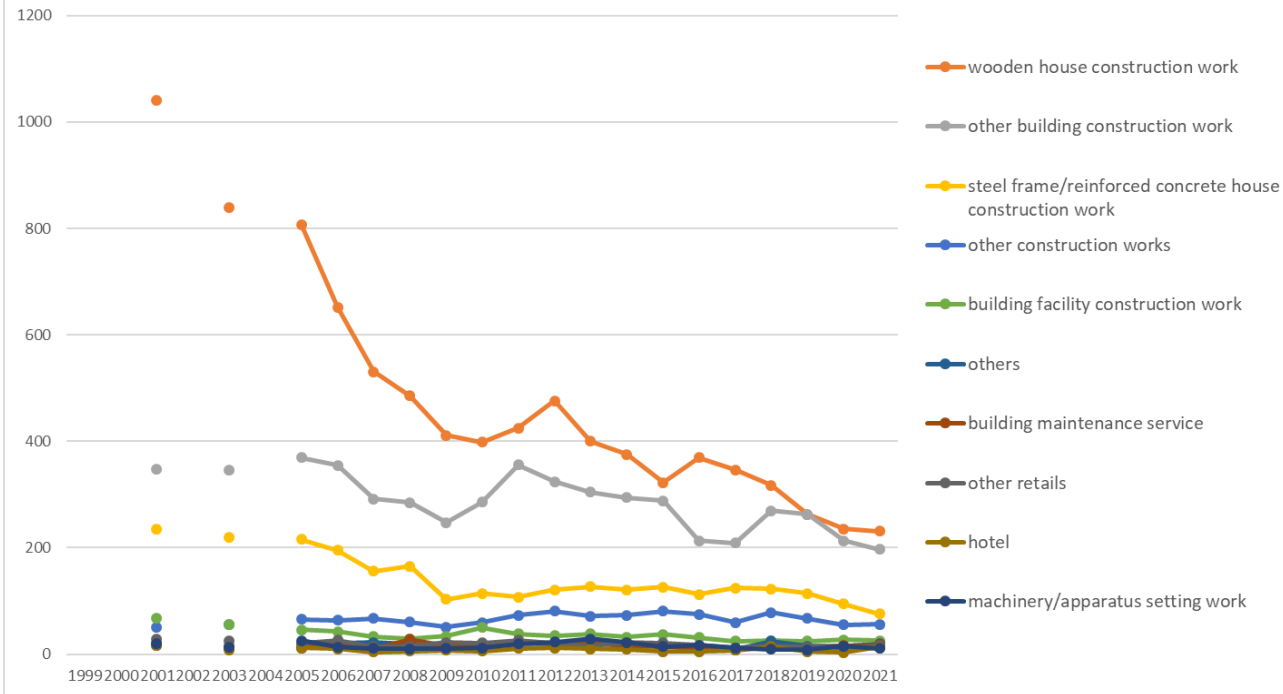
Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 415 roof, beam, haze, crossbeam, principal rafter in Large industry (1999-2021)

Transition of causal agents (Small) of fatal and non-fatal accidents in Top7 Middle industry (1999-2021)



Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 415 roof, beam, haze, crossbeam, principal rafter in Middle Industry (1999-2021)

Transition of causal agents (Small) of fatal and non-fatal accidents in Top10 Small industry (1999-2021)



Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 415 roof, beam, haze, crossbeam, principal rafter in Small Industry (1999-2021)

Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 415 roof, beam, haze, crossbeam, principal rafter in Large industry (1999-2021)

code	Large industry	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Large industry
03	construction			1,827		1,594		1,586	1,381	1,141	1,086	899	969	1,079	1,098	1,025	963	895	846	801	864	778	672	621	20,125	construction
01	manufacturing			117		102		98	97	66	83	65	72	83	77	59	61	50	61	55	73	52	48	57	1,376	manufacturing
08	commerce			67		51		53	48	38	36	32	40	53	45	36	38	31	32	30	35	33	25	34	757	commerce
14	hotel/restaurant/amusement service			22		20		22	22	19	17	22	22	20	23	19	18	14	12	10	22	15	10	23	352	hotel/restaurant/amusement service
15	commercial cleaning and livestock process			30		30		27	29	20	38	23	18	28	29	31	23	17	22	21	21	19	20	22	468	commercial cleaning and livestock process
17	others			22		14		12	21	26	19	10	18	20	22	25	19	17	11	9	24	16	16	20	341	others
06	agriculture			6		8		8	10	7	5	5	7	7	13	8	8	12	10	4	2	3	9	9	141	agriculture

07	livestock/fishery			4		8		13	8	10	5	12	6	5	7	8	9	9	7	7	11	6	9	8	152	livestock/fishery
04	transportation service			18		12		11	21	17	11	16	12	23	21	11	10	7	11	12	10	16	13	6	258	transportation service
13	health and hygiene service			3		10		9	6	7	4	8	10	8	12	8	11	9	9	11	13	5	8	6	157	health and hygiene service
12	education/research service			7		3		5	5	4	3	6	4	2	4	10	2	5	2	1	3	3	3	4	76	education/research service
05	cargo handling service			2		3			3	2	3	1	3		3	1	4	2						2	29	cargo handling service
11	telecommunication service			2		1		2	2		3	1	1	2	2		1	1	2		1		2	1	24	telecommunication service
02	mining			4		1		3	1	1	1	2	2	2	1		1				1		1	1	22	mining
09	financial business/advertisement			4		1		1	2	2	1		1	4	1	3			4						24	financial business/advertisement
10	movie/play service								1		2	1	1		1	1	2								9	movie/play service
16	public office					1		1					1	1	1	1			1	1					8	public office
	total			2,135		1,859		1,851	1,657	1,360	1,317	1,103	1,187	1,337	1,360	1,246	1,170	1,069	1,030	962	1,080	946	836	814	24,319	total

Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 415 roof, beam, haze, crossbeam, principal rafter in Middle industry (1999-2021)

code	Middle industry	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Middle industry
0302	construction work			1,690		1,461		1,438	1,244	1,012	964	795	848	926	956	869	822	773	725	703	734	664	569	529	17,722	construction work
0303	other construction works			87		96		105	98	105	93	81	95	117	124	121	122	103	98	84	99	86	83	73	1,870	other construction works
0802	retail			43		38		30	32	20	23	26	25	36	27	21	26	23	25	18	23	18	13	22	489	retail
1501	commercial cleaning and livestock process			30		30		27	29	20	38	23	18	28	29	31	23	17	22	21	21	19	20	22	468	commercial cleaning and livestock process
1702	others			21		14		12	21	26	19	10	18	20	19	25	19	17	10	9	24	15	16	20	335	others
0301	civil engineering work			50		37		43	39	24	29	23	26	36	18	35	19	19	23	14	31	28	20	19	533	civil engineering work
1401	hotel			16		7		12	10	4	6	7	6	11	12	10	9	5	5	7	14	5	3	13	162	hotel
0117	other manufacturing			12		8		8	9	8	9	9	8	14	8	8	4	5	7	12	9	8	4	10	160	other manufacturing
0109	sand and stone products			15		7		8	6	4	6	12	6	9	9	6	5	3	6	6	8	3	4	10	133	sand and stone products

0101	food products			12		15		25	19	12	16	9	14	12	20	10	10	10	5	3	10	4	7	9	222	food products	
1403	other amusement service			2		9		6	9	7	8	14	9	6	8	6	4	8	3	3	4	8	3	8	125	other amusement service	
0601	agriculture			3		6		7	7	7	4	4	6	6	11	7	6	10	8	3	2	2	9	8	116	agriculture	
0801	wholesale			19		9		15	7	9	4	4	11	8	10	10	10	3	5	8	7	6	8	7	160	wholesale	
0701	livestock			4		6		11	6	8	5	10	5	4	7	8	9	8	6	6	11	5	9	7	135	livestock	
0403	road cargo transportation service			16		10		7	16	16	11	14	11	17	19	9	7	5	8	9	8	12	9	5	209	road cargo transportation service	
0804	other commerce			5		4		8	9	9	9	2	4	8	8	5	2	4	2	4	5	9	3	5	105	other commerce	
1302	social welfare facility			1		6		5	5	5	2	3	6	6	8	8	8	6	3	9	9	3	5	5	103	social welfare facility	
0112	metal products			24		20		15	15	10	20	8	14	14	9	9	10	10	15	11	16	8	10	4	242	metal products	
0104	wood products			16		11		8	11	8	7	7	7	8	11	7	12	3	2	7	1	11	3	4	144	wood products	
0113	machine products			9		3		5	4	5	6	1	3	5	5	2	5	2	5	1	7	4	2	4	78	machine products	
1201	education/research service			7		3		5	5	4	3	6	4	2	4	10	2	5	2	1	3	3	3	4	76	education/research service	
0108	chemical products			3		9		10	7	6	9	5	3	5	3	4	4	6	4	2	4	5	5	3	97	chemical products	
0106	pulp/paper processing products			3		1		2	1	2	1	3	1			1	1		2	2	2	1	2	3	28	pulp/paper processing products	
0115	transport equipment products			6		5		4	8	1	2	2	9	3	3	2	3	1	4	3	3	2	2	2	65	transport equipment products	
1402	restaurant			4		4		4	3	8	3	1	7	3	3	3	5	1	4		4	2	4	2	65	restaurant	
0114	electrical equipment products			4		2			9	1	2	2	4	4	2	2	2		3	1	2	1		2	43	electrical equipment products	
0501	land cargo handling service			1		2			3	2	3	1	1		2		3	1						2	21	land cargo handling service	
0116	electric/gas/water service					5			1			1		1	2				1		1	1	1	2	16	electric/gas/water service	
0110	steel making					4		4	2	3		3		3		1	1	2	1	3	4		1	1	33	steel making	
0602	forestry			3		2		1	3		1	1	1	1	2	1	2	2	2	2	1		1		1	25	forestry

1101	telecommunication service			2	1	2	2		3	1	1	2	2		1	1	2		1	2	1	24	telecommunication service	
0401	railroad/water transportation/airline service				2		3	4		1	1	1	1	2	1	2		1	1	1		1	22	railroad/water transportation/airline service
0202	quarrying			4	1		3	1	1	1	2	1	2	1		1			1			1	20	quarrying
1303	other health and hygiene service			1			1		2	1	2	2	4		1			1	1	1	1	1	19	other health and hygiene service
0702	fishery				2		2	2	2		2	1	1			1	1	1		1		1	17	fishery
0103	fiber products			2	1		1		1	1	1			1					2	3	1	1	15	fiber products
0107	printing/bookbinding			2				2					2		1	2	1	2			2	1	15	printing/bookbinding
0111	nonferrous metal making			1	1			1	1	2			2		1	1		1			1	1	13	nonferrous metal making
0105	furniture			7	3		4	3	2				2	2	2	1	3	3		2	1	2	37	furniture
0102	textile products			1	7		4	1	1	2	2	2	1	1	4	1	2	2	1	2		1	35	textile products
1301	medical treatment service			1	4		3	1	2		4	2			2	3	6	1	3	1	2		35	medical treatment service
0402	road passenger transport service			1			1	1	1				5	1		1		3	2	1	3	4	24	road passenger transport service
0902	advertisement and mediator			3			1	1	1			1	2	1	1			2					13	advertisement and mediator
0901	financial business			1	1			1	1	1			2				2						11	financial business
1001	movie/play service							1		2	1	1		1	1	2							9	movie/play service
0502	harbor transportation service			1	1							2		1	1	1	1						8	harbor transportation service
1601	public office				1		1					1	1	1	1			1	1				8	public office
1701	dispatch service			1									3				1			1			6	dispatch service
0404	other transportation service			1						1					1								3	other transportation service

030301	electricity/telecommunication work			17		28		15	21	27	23	19	24	25	20	21	27	8	6	13	12	11	13	6	336	electricity/telecommunication work
080109	other wholesale			18		8		13	7	6	3	4	10	7	9	10	10	2	5	7	7	6	7	6	145	other wholesale
130201	social welfare facility			1		6		5	5	5	2	3	6	6	8	8	8	6	3	9	9	3	5	5	103	social welfare facility
030106	road construction work			3		5		2	2		1	3	3	6	1	2	2	1	5	1	3	3		5	48	road construction work
011209	other metal products			22		19		13	14	10	17	8	13	13	6	8	10	9	13	9	14	6	9	4	217	other metal products
040301	general truck transportation service			15		6		7	16	14	11	13	10	14	16	7	7	5	8	8	8	12	8	4	189	general truck transportation service
080409	other commerce			5		4		8	8	8	8	1	4	8	8	4	2	3	2	4	4	8	1	4	94	other commerce
010109	other foods			3		7		7	9	4	5	4	4	3	9	4	6	1	3	1	5	1	2	4	82	other foods
010909	other sand and stone products			7		1		4	3	2	2	5	2	4	4	3	1		1	1	2	1	1	4	48	other sand and stone products
011701	auto mobile servicing			4		1		1	3	4	2	3	2	5	2	2	1	1	1	3	2	4		4	45	auto mobile servicing
080202	auto mobile retail			1				1				1		1	1	2			1	1	1			4	14	auto mobile retail
120109	other education/research service			7		3		3	5	4	3	6	4	2	4	8	2	4	1	1	1	2	3	3	66	other education/research service
010903	pottery products			1		1		2				1		1			1	1	1	1	1			3	14	pottery products
010401	lumbering			10		9		5	5	5	4	6	1	6	6	3	7	1	2	5	1	7	3	2	88	lumbering
011709	other manufacturing			4		3		4	3	3	5	5	5	7	6	4	2	4	4	6	3	4	2	2	76	other manufacturing
011301	machine products			5		3		5	4	3	5	1	2	5	5	1	3	1	5	1	7	4	2	2	64	machine products
140201	general restaurant			4		3		4	3	6	3	1	6	3	3	3	5	1	4		4	1	4	2	60	general restaurant
010901	cement products			6		4		2	2	2	4	4	3	4	3	2	3	1	3	3	3	2	2	2	55	cement products
010409	other lumber and wood products			6		2		1	5	3	3	1	6	2	2	3	5	2		1		2		2	46	other lumber and wood products
030109	land consolidation civil engineering work			2		3		3	3	1	4	3	2	3		2	1		2	1	2		1	2	35	land consolidation civil engineering work
030110	water supply/sewage construction work			2		5		2	2	1	1	1	1	4		1			2	3	2	1	1	2	31	water supply/sewage construction work

010102	fishery products			3		1		4		2	5		2	2	2	1	1	1	1	1	1	1	1	2	30	fishery products
010104	bread/cake products			2		3		3	1	2	1	1	2	1	4	1	1	1		1	1	2		2	29	bread/cake products
150103	other waste disposal service					1			1	4	2	1	3	2		1		2	1	3	1		2	2	26	other waste disposal service
011702	machine repair			3		2		2	3						2	1		1	1	3		1	2	22	machine repair	
050101	land cargo handling service			1		2			3	2	3	1	1		2		3	1					2	21	land cargo handling service	
011703	cleaning			1		2		1		1	2		1	2				1	2	1		1	2	17	cleaning	
010601	pulp/paper			2							1	1							1	1	1	2	2	11	pulp/paper	
011305	other precision machine products			3									2		1								2	11	other precision machine products	
150109	other cleaning and livestock process service			7		8		7	1	4	3	3	1	2	3	6	3		2	5	4	5	1	1	66	other cleaning and livestock process service
150102	industrial waste management service			6		7		5	3	2	5	3	1	2	6	3	4	2	5	2	1	2	1	1	61	industrial waste management service
080204	fuel retail			2		4		3	2	2	3		3	5	3	3	3		4	3	4	3	1	1	49	fuel retail
011502	auto mobile products			3		2		4	3				1	5	1	2	2		3	2	2	2		1	35	auto mobile products
080201	all kinds of retail			6		4		4	3	2	1	3	1	1	2			1	1	2	1	2		1	35	all kinds of retail
010805	plastics products					2		3	2	2	2	2	1	1	1	1	2	3	1	1	3	1		1	29	plastics products
110101	telecommunication service			2		1		2	2		3	1	1	2	2		1	1	2		1		2	1	24	telecommunication service
010103	agricultural food products							2	3	2			1	2	2	1			3	1		3	1	1	23	agricultural food products
040101	railroad service					2		3	4				1	1	1	1	2	1	2		1	1	1		22	railroad service
011002	casting products					2		3	1	3			2		1		1	1	1	1	3	1		1	21	casting products
170201	security service			2		2			1	4			1	2			3	1	1	1	1			1	21	security service
010801	non organic or organic chemical products			1		1		2		3	1		1	2		1	1		2			3	1	1	20	non organic or organic chemical products
030105	bridge construction work			2		1			2		2	1		1			2		2		1			1	15	bridge construction work
010309	other fiber products			2		1		1			1	1				1					1	3	1	1	13	other fiber products
010602	paper processing products			1		1		1	1	1					1	1		1	1	1				1	12	paper processing products
	electronics equipment and																									electronics equipment and

011403	telecommunications apparatus			3							1	1	2	1	1		1			1	11	telecommunications apparatus	
020201	quarrying			2	1	2	1	1	2	1										1	11	quarrying	
060209	other forestry			2	2						1	2		2				1		1	11	other forestry	
080401	warehousing					1	1	1	1				1		1			1	1	2	1	11	warehousing
010701	printing service			2			1					1		1	1	1	1			1	1	10	printing service
011402	electrical appliance				1		3			2	1	1					1				1	10	electrical appliance
011509	other transport equipment products			3					1	1	2								1		1	10	other transport equipment products
040309	other land cargo transportation service				2			1		1	1	2								1	1	9	other land cargo transportation service
080102	furniture/fittings wholesale			1		1	1	1					1			1		1		1	1	9	furniture/fittings wholesale
120101	auto mobile practical training					2								2		1	1		2		1	9	auto mobile practical training
130309	other health and hygiene service			1		1			2					3							1	8	other health and hygiene service
030107	river civil engineering work			2		1	1	1												1	1	7	river civil engineering work
070201	fishery					2				1						1	1	1			1	7	fishery
011602	city gas service				1		1			1										1	1	5	city gas service
011603	city water service				1						1	1									1	4	city water service
010803	pharmaceuticals						1			1											1	3	pharmaceuticals
010904	fire resisting products				1													1			1	3	fire resisting products
011109	other nonferrous metal products											2									1	3	other nonferrous metal products
140301	golf course				1	2	4	4	4	6	2	2	3	1	2	4		1	1	1	2	40	golf course
130101	hospital			1	4	3	1	2		4	2				2	3	5	1	3		1	32	hospital
010101	meat/dairy products			1	2	4	2	2	4	2	4	1	1	2	2	1					2	30	meat/dairy products
010105	alcoholic drinks			2	2	5	4		1	1		3	2	2		1					1	24	alcoholic drinks
080203	furniture/fittings retail			3	6	2	1	1	3			2			1	1	1		1			22	furniture/fittings retail

010899	other chemical products			1		4		2	1		3	1	1	1	1		1		1	1	1		3		21	other chemical products
011409	other electrical equipment					1			6	1	2		2	2		1	1		1	2	1				20	other electrical equipment
011501	ship building					3			5	1	1		2	2	1		1	1	1		1				20	ship building
010209	other textile products					5		2	1	1	1	1		1		1	1		2		1				17	other textile products
010501	wood furniture			2		3		1	1	2				2		1		1		1		1			15	wood furniture
040201	taxi service							1	1					2	1		1		3	1	1	3	1		15	taxi service
140302	park and amusement park					1		1		1		2		2	1	1		1	1	1	1	1	2		15	park and amusement park
060201	lumbering			1				1	3			1	1	1		1		2	2	1					14	lumbering
011204	metal plating products			1		1		2			2			1	1	1		1	1	1	1				13	metal plating products
090209	other advertisement and mediator			3				1	1	1			1	2	1	1		2							13	other advertisement and mediator
010503	fittings			2				2	1						2		1	2			1				11	fittings
011203	metal press products			1					1		1		1		1			1	1	1	2	1			11	metal press products
130301	bathhouse										1	2	2	1		1			1	1	1	1			11	bathhouse
010402	plywood							2	1					3	1				1		2				10	plywood
010806	rubber products			1		1			1	1	1	1			2		1				1				10	rubber products
070209	other fishery					2			2	2		1	1	1							1				10	other fishery
010204	dyeing			1				2				1	1			1		1		1			1		9	dyeing
010509	other furniture			3				1						1			2			1		1			9	other furniture
010905	other ceramic products			1					1			2	1		1	1		1		1					9	other ceramic products
030111	port/seaside construction work							1		1	1	1			1			1					3		9	port/seaside construction work
080205	newspaper retail			3						1	1			1	1			1		1					9	newspaper retail
020202	gravel digging			2				1	1					2	1					1					8	gravel digging
040202	bus service			1						1				3									3		8	bus service
090103	insurance business					1			1		1			2		2		1							8	insurance business
160101	public office					1		1					1	1	1	1		1	1						8	public office
011001	steel/iron/rolling products					1		1	1				1		1								1		7	steel/iron/rolling products

011101	nonferrous metals/rolling products					1				1	2					1		1			1		7	nonferrous metals/rolling products
011601	electric utility service					3								1			1		1	1			7	electric utility service
030108	sand collapse prevention civil engineering work									3		1		1				1	1				7	sand collapse prevention civil engineering work
040302	specific truck transportation service					1								1	2								6	specific truck transportation service
050202	port cargo handling service												2		1	1	1	1					6	port cargo handling service
080101	all kinds of wholesale					1		1		2			1	1									6	all kinds of wholesale
170101	dispatch service					1									3			1			1		6	dispatch service
010203	weaving														1	2		1					5	weaving
010609	other pulp/paper processing products							1		1		1	1								1		5	other pulp/paper processing products
011009	other steel products					1								1								3	5	other steel products
040303	cargo/ light automobile transportation service									1					1	2					1		5	cargo/ light automobile transportation service
100101	movie production and delivery service							1		1	1	1					1						5	movie production and delivery service
140209	other restaurants					1				2			1								1		5	other restaurants
010106	soft drinks					1									1			2					4	soft drinks
010804	petroleum/coal products							1		1				1			1						4	petroleum/coal products
010808	painting products					1		2													1		4	painting products
010809	chemical fertilizer products							1			1						1	1					4	chemical fertilizer products
010902	glass products													1			1			1		1	4	glass products
100109	other movie/play service									1					1	1	1						4	other movie/play service
010202	cotton-spinning					2															1		3	cotton-spinning
010709	other printing and bookbinding									1								1			1		3	other printing and bookbinding

120102	software service																			1			1	software service
130109	other medical treatment service																				1		1	other medical treatment service
150105	livestock process service												1										1	livestock process service
170202	information processing service												1										1	information processing service
011201	western tableware/cutting tool products																							western tableware/cutting tool products
011304	watch products																							watch products
011503	railway vehicle products																							railway vehicle products
011609	other electric/gas/water service																							other electric/gas/water service
011704	tobacco products																							tobacco products
020109	other coal mining																							other coal mining
020301	metal mining																							metal mining
020302	petroleum mining																							petroleum mining
030103	subway construction work																							subway construction work
040102	water transportation service																							water transportation service
040103	airline service																							airline service
050209	other harbor transportation service																							other harbor transportation service
090102	stock/commodity trade business																							stock/commodity trade business
090109	other financial business																							other financial business
090201	traveling service																							traveling service
100102	movie theatre																							movie theatre
150104	cremation service																							cremation service
	total			2,135	1,859	1,851	1,657	1,360	1,317	1,103	1,187	1,337	1,360	1,246	1,170	1,069	1,030	962	1,080	946	836	814	24,319	total

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

https://www.jisha.or.jp/english/statistics/202212_03.html