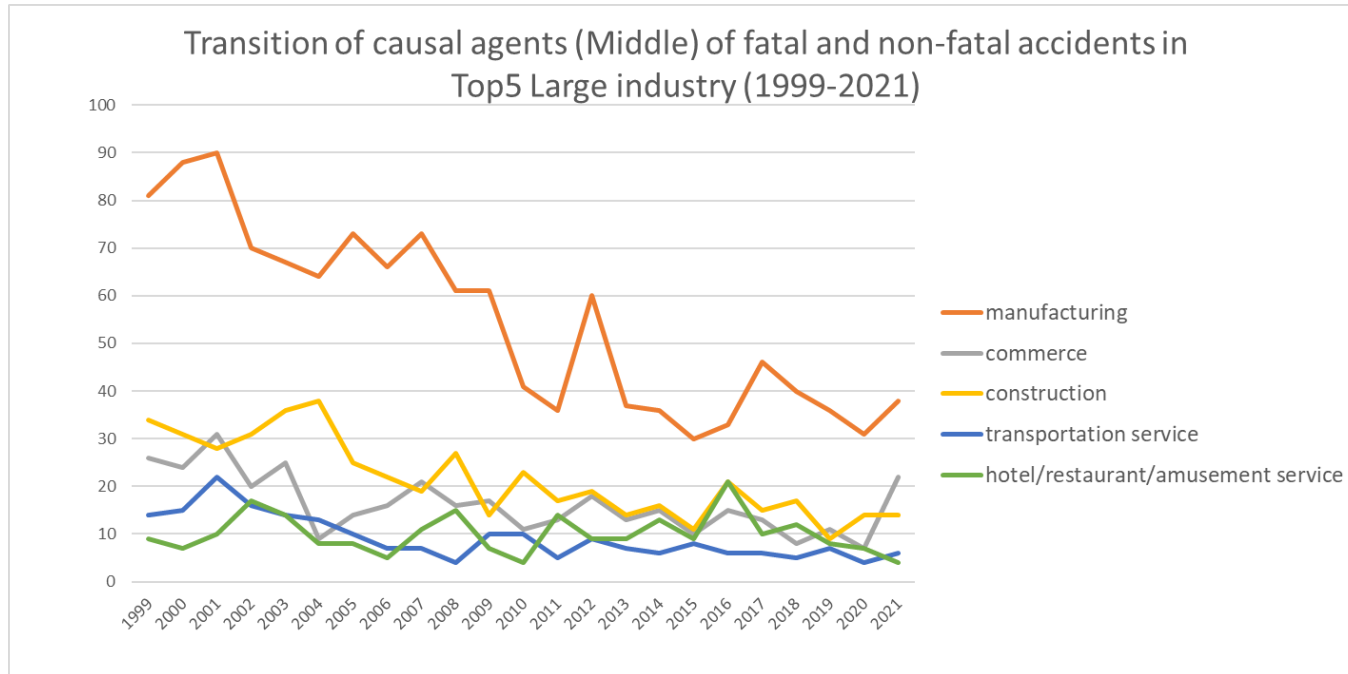
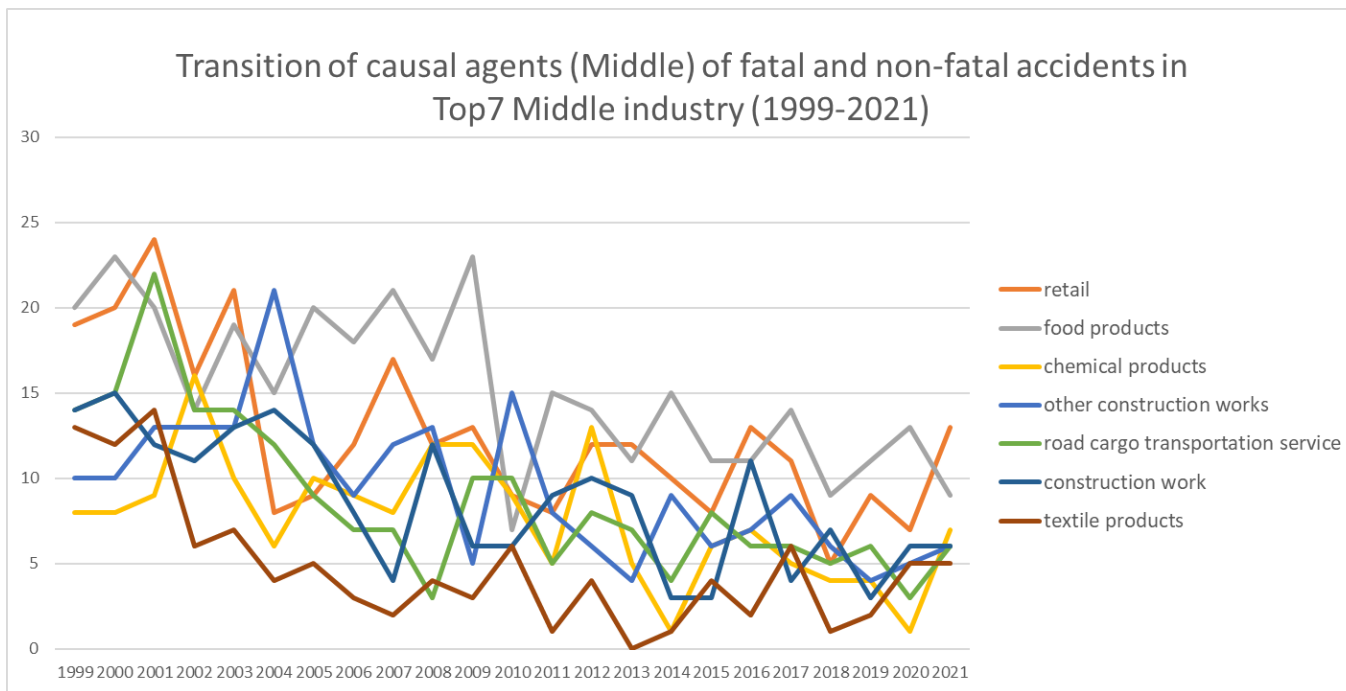


Transition of causal agents (Middle) of fatal and non-fatal accidents as code no. 31 pressure vessel (1999-2021)

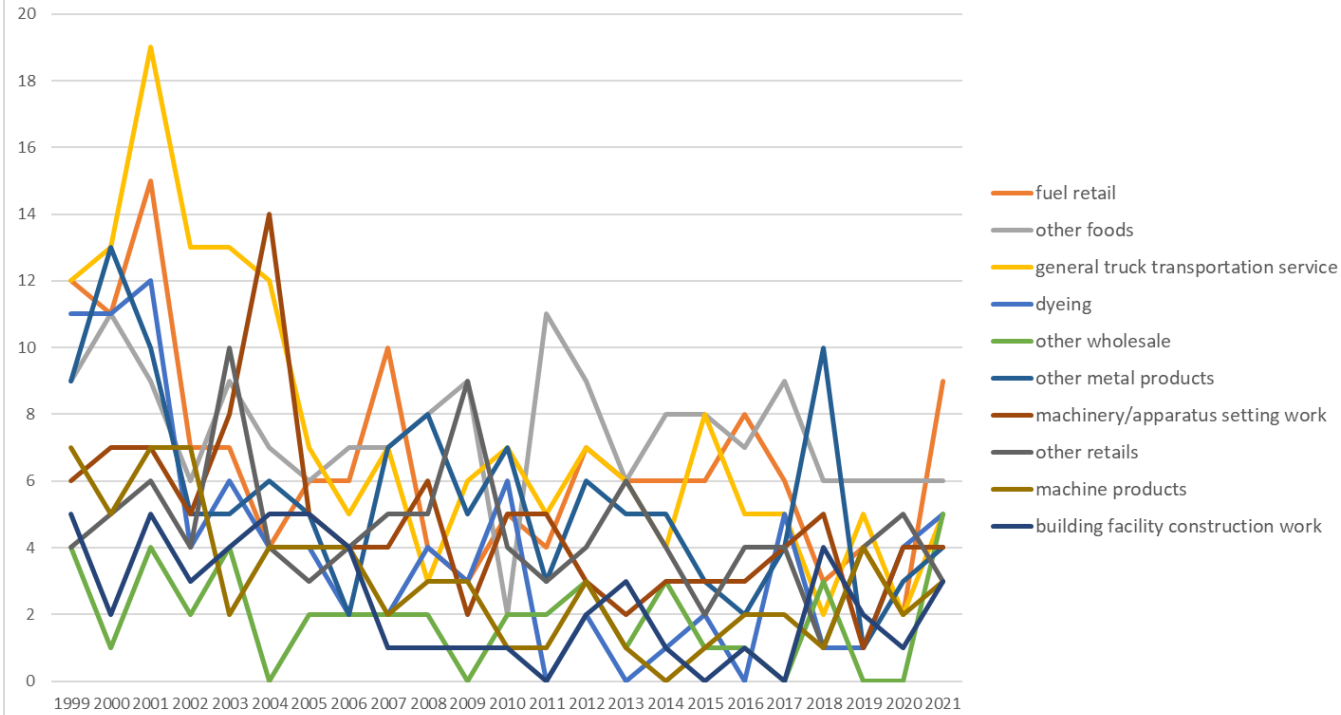


Transition of causal agents (Middle) of fatal and non-fatal accidents as code no. 31 pressure vessel in Large industry (1999-2021)



Transition of causal agents (Middle) of fatal and non-fatal accidents as code no. 31 pressure vessel in Middle Industry (1999-2021)

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



Transition of causal agents (Middle) of fatal and non-fatal accidents as code no. 31 pressure vessel in Small Industry (1999-2021)

Transition of causal agents (Middle) of fatal and non-fatal accidents as code no. 31 pressure vessel 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
01	manufacturing	81	88	90	70	67	64	73	66	73	61	61	41	36	60	37	36	30	33	46	40	36	31	38	1,258	manufacturing
08	commerce	26	24	31	20	25	9	14	16	21	16	17	11	13	18	13	15	10	15	13	8	11	7	22	375	commerce
03	construction	34	31	28	31	36	38	25	22	19	27	14	23	17	19	14	16	11	21	15	17	9	14	14	495	construction
04	transportation service	14	15	22	16	14	13	10	7	7	4	10	10	5	9	7	6	8	6	6	5	7	4	6	211	transportation service
14	hotel/restaurant/amusement service	9	7	10	17	14	8	8	5	11	15	7	4	14	9	9	13	9	21	10	12	8	7	4	231	hotel/restaurant/amusement service
13	health and hygiene service	2	6	3	3	4	3	5	4	4	5	6	3	4	7	3	7	6	6	3	2	5	4	2	97	health and hygiene service
17	others	3	3	10	5	9	4	7	4	3	3	3	2	6	4	6	1	3	3	3	6	3	4	1	96	others

12	education/research service	3	2	1		1	3	1		1		2			2					1		1		1	19	education/research service
05	cargo handling service	2	1	4		1			1	1		2					1				1	1		1	16	cargo handling service
10	movie/play service											1				1	1						1	4	movie/play service	
15	commercial cleaning and livestock process	10	7	11	4	5	6	5	3	7	6	7	5	8	6	12	3	3	3	2	1	2	2		118	commercial cleaning and livestock process
07	livestock/fishery	3			1				1		1			1		2	2			2					13	livestock/fishery
06	agriculture						1	1								1	1	1	1			1	1		8	agriculture
02	mining							1					1					1			1				4	mining
09	financial business/advertisement		1									1					1								3	financial business/advertisement
16	public office	1																							1	public office
11	telecommunication service																									telecommunication service
	total	188	185	210	167	176	149	150	129	147	138	130	101	104	134	104	103	83	109	101	93	84	74	90	2,949	total

Transition of causal agents (Middle) of fatal and non-fatal accidents as code no. 31 pressure vessel 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
0802	retail	19	20	24	16	21	8	9	12	17	12	13	9	8	12	12	10	8	13	11	5	9	7	13	288	retail
0101	food products	20	23	20	14	19	15	20	18	21	17	23	7	15	14	11	15	11	11	14	9	11	13	9	350	food products
0108	chemical products	8	8	9	16	10	6	10	9	8	12	12	9	5	13	5	1	6	7	5	4	4	1	7	175	chemical products
0303	other construction works	10	10	13	13	13	21	12	9	12	13	5	15	8	6	4	9	6	7	9	6	4	5	6	216	other construction works
0403	road cargo transportation service	14	15	22	14	14	12	9	7	7	3	10	10	5	8	7	4	8	6	6	5	6	3	6	201	road cargo transportation service
0302	construction work	14	15	12	11	13	14	12	8	4	12	6	6	9	10	9	3	3	11	4	7	3	6	6	198	construction work
0102	textile products	13	12	14	6	7	4	5	3	2	4	3	6	1	4		1	4	2	6	1	2	5	5	110	textile products
0801	wholesale	5	1	5	3	4		3	2	2	3	1	2	2	4	1	3	1	1	1	3			5	52	wholesale

0112	metal products	9	14	11	5	6	8	6	2	7	9	5	7	3	6	6	6	3	3	4	10	1	3	4	138	metal products	
0113	machine products	8	5	8	8	5	5	7	5	3	3	4	2	1	3	1		1	2	3	3	6	2	4	89	machine products	
1402	restaurant	6	3	6	12	8	5	4	4	8	13	4	4	12	4	6	9	7	15	8	7	7	5	3	160	restaurant	
0116	electric/gas/water service	1		1	2	3	1	2	4	2		2	2		1	1	1		1	1	1		1	3	30	electric/gas/water service	
0804	other commerce	2	3	1	1		1	2	2			3		3	2		2	1	1	1		2		3	30	other commerce	
0301	civil engineering work	10	6	3	7	10	3	1	5	3	2	3	2		3	1	4	2	3	2	4	2	3	2	81	civil engineering work	
0115	transport equipment products	4	6	5	6	4	4	5	1	3	3	2	1	1	2	2	1			5	1	4		2	62	transport equipment products	
0106	pulp/paper processing products		2	2		3	1	1		5	1		1	1	1				1	1	1			2	23	pulp/paper processing products	
0117	other manufacturing	9	5	9	7	6	8	9	10	7	8	5	1	4	8	5	7		4	5	3	5	5	1	131	other manufacturing	
1702	others	1	3	10	5	9	4	7	4	3	3	2	2	6	4	6	1	3	3	3	6	3	4	1	93	others	
1301	medical treatment service	1	4	2	2	3	3	5	2	3	2	1	3	4	7	2	5	2	4	3	1	4	3	1	67	medical treatment service	
1401	hotel	1	2	3	3	3	2	2		3		1		1			4	1	5	1	2	1		1	36	hotel	
0104	wood products	4	1	3	1		3		1	3	1	1	2	1		2	2	2	1	1	1	1		1	32	wood products	
1201	education/research service	3	2	1		1	3	1		1		2			2					1		1		1	19	education/research service	
0501	land cargo handling service	2	1	4		1			1	1		2					1				1			1	15	land cargo handling service	
1303	other health and hygiene service										1	4					1	2	1		1		1	1	12	other health and hygiene service	
0803	haircut/beauty salon			1						2	1													1	5	haircut/beauty salon	
1001	movie/play service												1				1	1						1	4	movie/play service	
1501	commercial cleaning and livestock process	10	7	11	4	5	6	5	3	7	6	7	5	8	6	12	3	3	3	3	2	1	2	2		118	commercial cleaning and livestock process

1403	other amusement service	2	2	1	2	3	1	2	1		2	2		1	5	3		1	1	1	3		2		35	other amusement service
0109	sand and stone products		4	4	2	2	3	3	3	5		1			1		1	2			1	1	1		34	sand and stone products
0114	electrical equipment products		4		2	1	2		3		1	1	3	1	4	2		1							25	electrical equipment products
0103	fiber products	3	1	1			2		4	3		2		1							1	1			19	fiber products
0110	steel making		2	1			2	2	1	1	1			2	1	1				1	3				18	steel making
1302	social welfare facility	1	2	1	1	1			2	1	2	1				1	1	2	1			1			18	social welfare facility
0111	nonferrous metal making	1	1	2				1		2	1				2		1		1						12	nonferrous metal making
0701	livestock	3			1				1					1		1	2			2					11	livestock
0105	furniture				1	1		1	2	1						1					1				8	furniture
0402	road passenger transport service				2			1			1				1							1			6	road passenger transport service
0601	agriculture						1	1							1	1					1	1			6	agriculture
0202	quarrying							1						1				1			1				4	quarrying
0401	railroad/water transportation/airline service						1									2									3	railroad/water transportation/airline service
1701	dispatch service	2										1													3	dispatch service
0107	printing/bookbinding	1						1																	2	printing/bookbinding
0602	forestry																1	1							2	forestry
0702	fishery									1					1										2	fishery
0901	financial business											1				1									2	financial business
0404	other transportation service																					1			1	other transportation service

0502	harbor transportation service																						1			1	harbor transportation service
0902	advertisement and mediator		1																							1	advertisement and mediator
1601	public office	1																								1	public office
0201	coal mining																										coal mining
0203	other mining																										other mining
1101	telecommunication service																										telecommunication service
	total	188	185	210	167	176	149	150	129	147	138	130	101	104	134	104	103	83	109	101	93	84	74	90	2,949	total	

Transition of causal agents (Middle) of fatal and non-fatal accidents as code no. 31 pressure vessel in Small industry (1999-2021)

code	Small 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	Small industry
080204	fuel retail	12	11	15	7	7	4	6	6	10	4	3	5	4	7	6	6	6	8	6	3	4	2	9	151	fuel retail
010109	other foods	9	11	9	6	9	7	6	7	7	8	9	2	11	9	6	8	8	7	9	6	6	6	6	172	other foods
040301	general truck transportation service	12	13	19	13	13	12	7	5	7	3	6	7	5	7	6	4	8	5	5	2	5	2	5	171	general truck transportation service
010204	dyeing	11	11	12	4	6	4	4	2	2	4	3	6		2		1	2		5	1	1	4	5	90	dyeing
080109	other wholesale	4	1	4	2	4		2	2	2	2		2	2	3	1	3	1	1		3			5	44	other wholesale
011209	other metal products	9	13	10	5	5	6	5	2	7	8	5	7	3	6	5	5	3	2	4	10	1	3	4	128	other metal products
030302	machinery/apparatus setting work	6	7	7	5	8	14	5	4	4	6	2	5	5	3	2	3	3	3	4	5	1	4	4	110	machinery/apparatus setting work
080209	other retails	4	5	6	4	10	4	3	4	5	5	9	4	3	4	6	4	2	4	4	1	4	5	3	103	other retails
011301	machine products	7	5	7	7	2	4	4	4	2	3	3	1	1	3	1		1	2	2	1	4	2	3	69	machine products
030203	building facility construction work	5	2	5	3	4	5	5	4	1	1	1	1		2	3	1		1		4	2	1	3	54	building facility construction work

080409	other commerce	1	2	1			1	2	2			2		3	1		2	1		1		1		3	23	other commerce
011602	city gas service				2	1	1	2	2	2		1	1		1		1							3	18	city gas service
010805	plastics products	1	1	2	2					1				2	1				3			1		3	17	plastics products
140201	general restaurant	5	2	5	12	7	4	4	4	8	13	4	4	11	3	6	9	7	14	8	6	6	5	2	149	general restaurant
030309	other construction works	3	3	6	7	5	5	7	4	7	7	3	9	3	3	2	6	3	4	4	1	3	1	2	98	other construction works
030209	other building construction work	4	7	4	5	5	4	4	3	1	6	3	4	5	3	4	2	2	6	3	3	1	3	2	84	other building construction work
170209	others	1	2	9	5	9	4	7	4	3	3	1	2	5	4	6	1	3	3	3	6	3	4	1	89	others
010801	non organic or organic chemical products	2	1	1	6	4	2	1	7	3	3	5	5	1	6	1	1	1	2		1	1		1	55	non organic or organic chemical products
130101	hospital	1	4	2	2	3	3	3	2	3	2	1	1	2	6	2	4	2	3	3		1	1	1	52	hospital
030201	steel frame/reinforced concrete house construction work	5	5	2	3	2	4	1		2	4	2		3	4	2		1	2	1			2	1	46	steel frame/reinforced concrete house construction work
140101	hotel	1	2	3	3	3	2	2		3		1		1			4	1	5	1	2	1		1	36	hotel
010102	fishery products	3	2	2	2	2		1	2	4	4	1	3	1	2	1		1		1	1		1	1	35	fishery products
011702	machine repair	3	1		1	3		2	3	3	4		1		4				1		1		1	1	29	machine repair
010106	soft drinks	2	3		2	2		3	2	2		1		1	2		2			2		2		1	27	soft drinks
010899	other chemical products	1	3	1	4		1	1		1	1	1	3		1	2		1		3		1		1	26	other chemical products
011501	ship building	2	2	2	3	1		1	1		1		1			1	1			4	1	2		1	24	ship building
011502	auto mobile products		2		2	3	3	2		3	2	2		1	1	1				1				1	24	auto mobile products
010803	pharmaceuticals	1	1	1	2	2	1	1				2		1	2					2	2		1	1	20	pharmaceuticals
120109	other education/research service	3	2	1		1	3	1		1		2			2					1		1		1	19	other education/research service
010601	pulp/paper		2	1		2	1	1		5	1		1		1					1	1			1	18	pulp/paper
010105	alcoholic drinks		1	1			4	2	2		1			1		1	1			1			1	1	17	alcoholic drinks
010401	lumbering	3			1		1			3		1	1	1		2				1				1	15	lumbering

050101	land cargo handling service	2	1	4		1			1	1		2					1			1			1	15	land cargo handling service
040309	other land cargo transportation service	1		2				1				1	1		1			1		2		1	1	12	other land cargo transportation service
080202	auto mobile retail	1	1	1	3	2			1				1						1			1	12	auto mobile retail	
130301	bathhouse											4				1	2	1		1		1	1	11	bathhouse
140209	other restaurants	1	1	1		1	1						1	1				1		1	1		1	11	other restaurants
010809	chemical fertilizer products							2		1	1				1	1							1	7	chemical fertilizer products
010602	paper processing products			1		1							1						1				1	5	paper processing products
080302	beauty salon			1						2	1												1	5	beauty salon
030102	tunnel construction work	1				1							1										1	4	tunnel construction work
030111	port/seaside construction work											1				1							1	4	port/seaside construction work
011302	measuring instruments							1															1	2	measuring instruments
100109	other movie/play service																						1	1	other movie/play service
150101	building maintenance service	4	2	8	3	3	3	3	2	4		5	4	2	1	8	2			1		1	1	57	building maintenance service
010104	bread/cake products	2	3	3	2	2	2	4	3	3	3	6	1			3		3		1	1	3		45	bread/cake products
011701	auto mobile servicing	5	2	5	4	3	4	2	1	3	1	3			1	1	2		1	3	1	1	1	44	auto mobile servicing
030199	other civil engineering work	5	4	3	4	7	2	1	2	3		1	1		1		2			1	2		2	41	other civil engineering work
010806	rubber products	1	2	2	1	3	2	3	2	2	7	1	1	1	2	1		4	2			1		38	rubber products
011709	other manufacturing	1	1	2	2		3	4	3	1	2	1		1	2	4	2				1	2	2	34	other manufacturing
010101	meat/dairy products	3	2	3	2	2	2	2	2	2	1	3			1	2	1	2	1	1	1			33	meat/dairy products
150102	industrial waste management service	2	3	1		2	1	2				2		1	5	2	2	1	2	3	1		1	31	industrial waste management service
140309	other amusement service	2	2	1		2	1	1	1		1	1			5	2		1	1	1	2		1	25	other amusement service
011703	cleaning		1	1			1	1	3		1	1		3	1		3		2	2		2	1	23	cleaning
010103	agricultural food products	1	1	2		2		2		3		3	1	1		1						2	2	21	agricultural food products
010901	cement products		2	2	2	2	2	3	1	2		1			1		1	1					1	21	cement products

080201	all kinds of retail	2	3	2	2	2			1	2	3							1	1					20	all kinds of retail			
011305	other precision machine products	1		1	1	3	1	2	1	1		1	1							1	2	2			18	other precision machine products		
130201	social welfare facility	1	2	1	1	1			2	1	2	1				1	1	2	1			1			18	social welfare facility		
150109	other cleaning and livestock process service	3	1		1		2			3	1	1		1	1	1		1				1	1			18	other cleaning and livestock process service	
040302	specific truck transportation service	1	2	1	1	1		1	2			3	2			1							1	1		17	specific truck transportation service	
030202	wooden house construction work		1	1		2	1	2	1		1		1	1	1											14	wooden house construction work	
011509	other transport equipment products	2	2	2	1		1	2							1									2		13	other transport equipment products	
030106	road construction work	1				2	1		1		2					1	1					2	2			13	road construction work	
010301	over/under wear	1	1	1			1		1	3		2										1				11	over/under wear	
030110	water supply/sewage construction work	1			1			2			1			2		1		2						1		11	water supply/sewage construction work	
070101	livestock	3			1			1						1		1	2					2				11	livestock	
130109	other medical treatment service							2						2	1	1							1	3	1		11	other medical treatment service
010402	plywood	1	1	2			2		1				1				1	1								10	plywood	
011409	other electrical equipment		3				1				1	1		1	1			1								9	other electrical equipment	
150103	other waste disposal service		1	1				1		3	1				1	1										9	other waste disposal service	
010209	other textile products	1		1			1								2			2	1							8	other textile products	
010309	other fiber products	2					1		3					1										1		8	other fiber products	
011009	other steel products		1	1			2		1		1			1								1				8	other steel products	
030301	electricity/telecommunication work	1			1		2		1	1				1												8	electricity/telecommunication work	

140301	golf course				1	1					1	1		1	1				1	1		8	golf course		
010203	weaving	1	1						1								1	1		1	1		7	weaving	
010409	other lumber and wood products				1											2	1			1	1		7	other lumber and wood products	
010909	other sand and stone products			1	2			1		1							1					1	7	other sand and stone products	
011001	steel/iron/rolling products							2		1				1	1	1					1		7	steel/iron/rolling products	
011109	other nonferrous metal products	1			1									1		1							7	other nonferrous metal products	
011403	electronics equipment and telecommunications apparatus									1						3						1	2	7	electronics equipment and telecommunications apparatus
011601	electric utility service	1			1									1	1						1	1		7	electric utility service
080101	all kinds of wholesale	1			1	1							1	1								1		7	all kinds of wholesale
080401	warehousing	1	1			1																1		7	warehousing
060101	agriculture							1	1							1	1					1	1	6	agriculture
010808	painting products	2			2																			5	painting products
011401	heavy electrical equipment			1		1																1		5	heavy electrical equipment
011101	nonferrous metals/rolling products				1	1																1		4	nonferrous metals/rolling products
011204	metal plating products							1	1													1	1	4	metal plating products
011402	electrical appliance					1		1														1		4	electrical appliance
011609	other electric/gas/water service							1															1	4	other electric/gas/water service
130102	general clinic															1						1		4	general clinic
170201	security service			1	1											1								4	security service
010202	cotton-spinning					1	1																	3	cotton-spinning

070209	other fishery								1												2	other fishery	
140302	park and amusement park			1		1																2	park and amusement park
010904	fire resisting products																1					1	fire resisting products
011102	nonferrous metals casting products														1							1	nonferrous metals casting products
011503	railway vehicle products			1																		1	railway vehicle products
011603	city water service					1																1	city water service
011704	tobacco products			1																		1	tobacco products
030108	sand collapse prevention civil engineering work	1																				1	sand collapse prevention civil engineering work
040101	railroad service																					1	railroad service
040102	water transportation service																					1	water transportation service
040103	airline service							1														1	airline service
040303	cargo/ light automobile transportation service																					1	cargo/ light automobile transportation service
040409	other transportation service																					1	other transportation service
050202	port cargo handling service																					1	port cargo handling service
080102	furniture/fittings wholesale										1											1	furniture/fittings wholesale
080203	furniture/fittings retail																					1	furniture/fittings retail
080205	newspaper retail																					1	newspaper retail
090101	banking/trust business																					1	banking/trust business
090103	insurance business																					1	insurance business
090209	other advertisement and mediator			1																		1	other advertisement and mediator
130309	other health and hygiene service																					1	other health and hygiene service
160101	public office	1																				1	public office

070201	fishery																							fishery		
080301	haircut																							haircut		
090102	stock/commodity trade business																							stock/commodity trade business		
090109	other financial business																							other financial business		
090201	traveling service																							traveling service		
100101	movie production and delivery service																							movie production and delivery service		
110101	telecommunication service																							telecommunication service		
120101	auto mobile practical training																							auto mobile practical training		
120102	software service																							software service		
150104	cremation service																							cremation service		
170202	information processing service																							information processing service		
	total	188	185	210	167	176	149	150	129	147	138	130	101	104	134	104	103	83	109	101	93	84	74	90	2,949	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