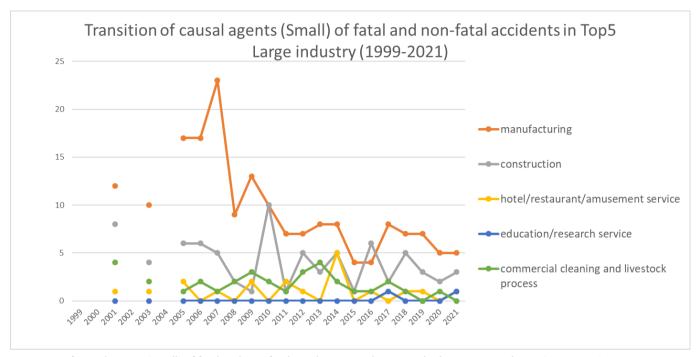
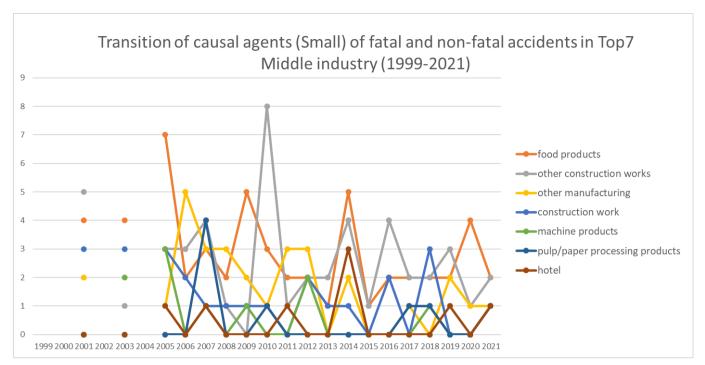
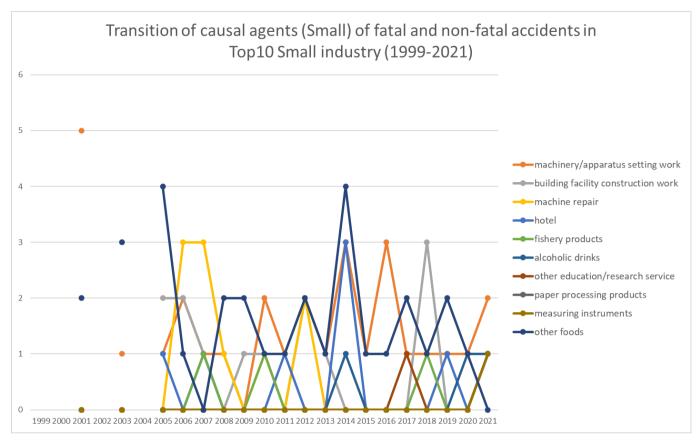
Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 311 boiler (1999-2021)



Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 311 boiler in Large industry (1999-2021)



Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 311 boiler in Middle Industry (1999-2021)



Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 311 boiler in Small Industry (1999-2021)

Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 311 boiler 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			12		10		17	17	23	9	13	10	7	7	8	8	4	4	8	7	7	5	5	181	manufacturing
03	construction			8		4		6	6	5	2	1	10	1	5	3	5	1	6	2	5	3	2	3	78	construction
14	hotel/restaurant/amusement service			1		1		2		1		2		2	1		5		1		1	1		1	19	hotel/restaurant/amusement
12	education/research service																			1				1	2	education/research service
15	commercial cleaning and livestock process			4		2		1	2	1	2	3	2	1	3	4	2	1	1	2	1		1		33	commercial cleaning and livestock process
08	commerce			1		1		1	1	4	4	2				1	1			1	1	2			20	commerce

17	others		2		4		1			1	3	1			1				2	1		16	others
13	health and hygiene service			1		1	1		1			1	1	1		1		1		1		10	health and hygiene service
06	agriculture				1								1						1			3	agriculture
04	transportation service								1										1			2	transportation service
07	livestock/fishery												1									1	livestock/fishery
02	mining																						mining
05	cargo handling service																						cargo handling service
09	financial																						financial
	business/advertisement																						business/advertisement
10	movie/play service																						movie/play service
11	telecommunication service																						telecommunication service
16	public office																						public office
	total		28	19	32	27	36	17	23	23	14	18	19	22	7	13	14	16	17	10	10	365	total

Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 311 boiler 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
0101	food products			4		4		7	2	3	2	5	3	2	2	1	5	1	2	2	2	2	4	2	55	food products
0303	other construction works			5		1		3	3	4	1		8	1	2	2	4	1	4	2	2	3	1	2	49	other construction works
0117	other manufacturing			2				1	5	3	3	2	1	3	3		2			1		2	1	1	30	other manufacturing
0302	construction work			3		3		3	2	1	1	1	1		2	1	1		2		3			1	25	construction work
0113	machine products					2		3		1		1			2						1			1	11	machine products
0106	pulp/paper processing products									4			1							1	1			1	8	pulp/paper processing products
1401	hotel							1		1				1			3					1		1	8	hotel
																										education/research

1201	education/research service																1				1	2	service
1501	commercial cleaning and livestock process		4	2	1	2	1	2	3	2	1	3	4	2	1	1	2	1		1		33	commercial cleaning
0104	wood products		3			1	3	1	1	2			2		1	1	1	1	1			18	wood products
0108	chemical products			1	3	1	2	2	2	1			1		2	1			1			17	chemical products
1702	others		2		4		1			1	3	1			1				2	1		16	others
0802	retail			1		1	1	4	2				1				1		1			12	retail
0116	electric/gas/water service		1	2		2				1			1				1					8	electric/gas/water service
0103	fiber products					2	3		1									1				7	fiber products
0112	metal products		1				2	1	1				2									7	metal products
1403	other amusement service		1	1	1				2			1										6	other amusement service
0115	transport equipment products				2	1							1				1					5	transport equipment
1402	restaurant										1			2		1		1				5	restaurant
0109	sand and stone products		1			1	1												1			4	sand and stone
0301	civil engineering work					1				1		1								1		4	civil engineering work
1301	medical treatment service			1			1					1				1						4	medical treatment
0105	furniture			1		2																3	furniture
0110	steel making				1						1							1				3	steel making
0601	agriculture				1								1						1			3	agriculture
0801	wholesale				1		1											1				3	wholesale
0803	haircut/beauty salon		1				2															3	haircut/beauty salon
1302	social welfare facility					1			1				1									3	social welfare facility

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1303	other health and hygiene service											1			1		1		3	other health and hygiene service
0102	textile products								1					1					2	textile products
0111	nonferrous metal making						1					1							2	nonferrous metal making
0804	other commerce											1				1			2	other commerce
0114	electrical equipment products									1									1	electrical equipment products
0402	road passenger transport service															1			1	road passenger transport service
0403	road cargo transportation service							1											1	road cargo transportation service
0702	fishery										1								1	fishery
0107	printing/bookbinding																			printing/bookbinding
0201	coal mining																			coal mining
0202	quarrying																			quarrying
0203	other mining																			other mining
0401	railroad/water transportation/airline service																			railroad/water transportation/airline service
0404	other transportation service																			other transportation service
0501	land cargo handling service																			land cargo handling service
0502	harbor transportation service																			harbor transportation service
0602	forestry																			forestry

0701	livestock																						livestock
0901	financial business																						financial business
0002	advertisement and mediator																						advertisement and
0702	advertisement and mediator																						mediator
1001	movie/play service																						movie/play service
1101	telecommunication service																						telecommunication
1101	telecommunication service																						service
1601	public office																						public office
1701	dispatch service																						dispatch service
	total		28	19	32	27	36	17	23	23	14	18	19	22	7	13	14	16	17	10	10	365	total

Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 311 boiler 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	tota	Small industry
030302	machinery/apparatus setting work			5		1		1	2	1	1		2	1	2	1	3	1	3	1	1	1	1	2	30	machinery/apparatus setting work
030203	building facility construction work			2		3		2	2	1		1	1		2	1					3			1	19	building facility construction work
011702	machine repair								3	3	1		1		2									1	11	machine repair
140101	hotel							1		1				1			3					1		1	8	hotel
010102	fishery products									1			1								1			1	4	fishery products
010105	alcoholic drinks																1						1	1	3	alcoholic drinks
120109	other education/research service																			1				1	2	other education/research service
010602	paper processing products																							1	1	paper processing products
011302	measuring instruments																							1	1	measuring instruments
010109	other foods			2		3		4	1		2	2	1	1	2	1	4	1	1	2	1	2	1		31	other foods

150101	building maintenance service		4	2	1	1	1		2	2			2	1			1			1	18	building maintenance service
030309	other construction works				2	1	2			5			1	1		1	1	1	2		17	other construction works
170209	others		2		4		1			1	3	1			1				2	1	16	others
011703	cleaning		1		1	2		1	1		2	1		2			1		1	1	14	cleaning
080209	other retails			1		1	1	3	1				1				1				9	other retails
010401	lumbering						3		1	1			2				1				8	lumbering
010104	bread/cake products		1		2		1		2											1	7	bread/cake products
010601	pulp/paper						4			1							1	1			7	pulp/paper
011301	machine products			1	2				1			2						1			7	machine products
150109	other cleaning and livestock process service							1	1		1	1	1		1			1			7	other cleaning and livestock process service
010402	plywood		2			1				1					1	1					6	plywood
011209	other metal products		1				2	1	1				1								6	other metal products
010103	agricultural food products		1		1					1	1									1	5	agricultural food products
010301	over/under wear						3		1									1			5	over/under wear
010806	rubber products							1		1					2				1		5	rubber products
140201	general restaurant										1			2		1		1			5	general restaurant
150102	industrial waste management service											1	1	1		1	1				5	industrial waste management service
010409	other lumber and wood products		1					1										1	1		4	other lumber and wood products
011501	ship building				1	1							1				1				4	ship building
011601	electric utility service		1							1			1				1				4	electric utility service
011709	other manufacturing		1					1			1								1		4	other manufacturing
030209	other building construction work		1		1									1		1					4	other building construction work
130101	hospital			1			1					1				1					4	hospital

010101	meat/dairy products			1					1						1					3	meat/dairy products
011001	steel/iron/rolling products				1						1						1			3	steel/iron/rolling products
011305	other precision machine products			1	1		1													3	other precision machine products
011609	other electric/gas/water service			1		2														3	other electric/gas/water service
030110	water supply/sewage construction work					1						1							1	3	water supply/sewage construction work
060101	agriculture				1								1					1		3	agriculture
080302	beauty salon		1				2													3	beauty salon
130201	social welfare facility					1			1				1							3	social welfare facility
130301	bathhouse													1			1		1	3	bathhouse
140309	other amusement service		1						1			1								3	other amusement service
010106	soft drinks					1	1													2	soft drinks
010204	dyeing									1						1				2	dyeing
010309	other fiber products					2														2	other fiber products
010509	other furniture					2														2	other furniture
010804	petroleum/coal products			1	1															2	petroleum/coal products
010805	plastics products						1								1					2	plastics products
010809	chemical fertilizer products				1			1												2	chemical fertilizer products
010899	other chemical products						1						1							2	other chemical products
011109	other nonferrous metal products						1							1						2	other nonferrous metal products
030202	wooden house construction work							1							1					2	wooden house construction work
030301	electricity/telecommunication work						1			1										2	electricity/telecommunication work

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080109	other wholesale							1									1			2	other wholesale
080409	other commerce													1				1		2	other commerce
140301	golf course			1						1										2	golf course
150103	other waste disposal service						1		1											2	other waste disposal service
010501	wood furniture			1																1	wood furniture
010801	non organic or organic						1													1	non organic or organic
010803	pharmaceuticals									1										1	pharmaceuticals
																				<u> </u>	
010807	leather products					1														1	leather products
010808	painting products									1										1	painting products
010901	cement products		1																	1	cement products
010902	glass products							1												1	glass products
010904	fire resisting products																	1		1	fire resisting products
010905	other ceramic products						1													1	other ceramic products
011204	metal plating products												1							1	metal plating products
011409	other electrical equipment											1								1	other electrical equipment
011509	other transport equipment products					1														1	other transport equipment products
011603	city water service			1																1	city water service
011701	auto mobile servicing									1										1	auto mobile servicing
030199	other civil engineering work										1									1	other civil engineering work
040202	bus service																	1		1	bus service
040301	general truck transportation service									1										1	general truck transportation
070209	other fishery												1							1	other fishery
080102	furniture/fittings wholesale					1														1	furniture/fittings wholesale

080201	all kinds of retail						1									1	all kinds of retail
080203	furniture/fittings retail							1								1	furniture/fittings retail
080205	newspaper retail													1		1	newspaper retail
140302	park and amusement park				1											1	park and amusement park
150105	livestock process service									1						1	livestock process service
010201	silk-reeling																silk-reeling
010202	cotton-spinning																cotton-spinning
010203	weaving																weaving
010209	other textile products																other textile products
010502	metal furniture																metal furniture
010503	fittings																fittings
010609	other pulp/paper processing products																other pulp/paper processing products
010701	printing service																printing service
010702	bookbinding																bookbinding
010709	other printing and bookbinding																other printing and bookbinding
010802	chemical fiber																chemical fiber
010903	pottery products																pottery products
010909	other sand and stone products																other sand and stone
011002	casting products																casting products
011009	other steel products																other steel products
011101	nonferrous metals/rolling																nonferrous metals/rolling products
011102	nonferrous metals casting products																nonferrous metals casting products

011201	western tableware/cutting tool products												western tableware/cutting tool products
011202	screw products												screw products
011203	metal press products												metal press products
011303	optical instruments												optical instruments
011304	watch products												watch products
011401	heavy electrical equipment												heavy electrical equipment
011402	electrical appliance												electrical appliance
011403	electronics equipment and telecommunications apparatus												electronics equipment and telecommunications apparatus
011502	auto mobile products												auto mobile products
011503	railway vehicle products												railway vehicle products
011602	city gas service												city gas service
011704	tobacco products												tobacco products
020101	general coal mining												general coal mining
020109	other coal mining												other coal mining
020201	quarrying												quarrying
020202	gravel digging												gravel digging
020209	other quarrying												other quarrying
020301	metal mining												metal mining
020302	petroleum mining												petroleum mining
020309	other mining												other mining
030101	hydroelectric plant construction work												hydroelectric plant construction work
030102	tunnel construction work												tunnel construction work

030103	subway construction work													subway construction work
030104	railway construction work													railway construction work
030105	bridge construction work													bridge construction work
030106	road construction work													road construction work
030107	river civil engineering work													river civil engineering work
030108	sand collapse prevention civil													sand collapse prevention civil
030108	engineering work													engineering work
030109	land consolidation civil													land consolidation civil
030103	engineering work													engineering work
030111	port/seaside construction													port/seaside construction
	work													work
	steel frame/reinforced													steel frame/reinforced
030201	concrete house construction													concrete house construction
	work													work
040101	railroad service													railroad service
040102	water transportation service													water transportation service
040103	airline service													airline service
040201	taxi service													taxi service
040209	other passenger transport													other passenger transport
0 10203	service													service
040302	specific truck transportation													specific truck transportation
	service													service
040303	cargo/ light automobile													cargo/ light automobile
	transportation service													transportation service
040309	other land cargo													other land cargo
	transportation service													transportation service
040409	other transportation service													other transportation service

050101	land cargo handling service											land cargo handling service
050201	general harbor transportation											general harbor transportation service
050202	port cargo handling service											port cargo handling service
050209	other harbor transportation service											other harbor transportation service
060201	lumbering											lumbering
060209	other forestry											other forestry
070101	livestock											livestock
070201	fishery											fishery
080101	all kinds of wholesale											all kinds of wholesale
080202	auto mobile retail											auto mobile retail
080204	fuel retail											fuel retail
080301	haircut											haircut
080401	warehousing											warehousing
090101	banking/trust business											banking/trust business
090102	stock/commodity trade business											stock/commodity trade business
090103	insurance business											insurance business
090109	other financial business											other financial business
090201	traveling service											traveling service
090209	other advertisement and mediator											other advertisement and mediator
100101	movie production and delivery service											movie production and delivery service
100102	movie theatre											movie theatre
100109	other movie/play service											other movie/play service

110101	telecommunication service																						telecommunication service
120101	auto mobile practical training																						auto mobile practical training
120102	software service																						software service
130102	general clinic																						general clinic
130109	other medical treatment																						other medical treatment
	service																						service
130309	other health and hygiene																						other health and hygiene
	service																						service
140209	other restaurants																						other restaurants
150104	cremation service																						cremation service
160101	public office																						public office
170101	dispatch service																						dispatch service
170201	security service																						security service
170202	information processing																						information processing
	service																						service
	total		28	19	32	27	36	17	23	23	14	18	19	22	7	13	14	16	17	10	10	365	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