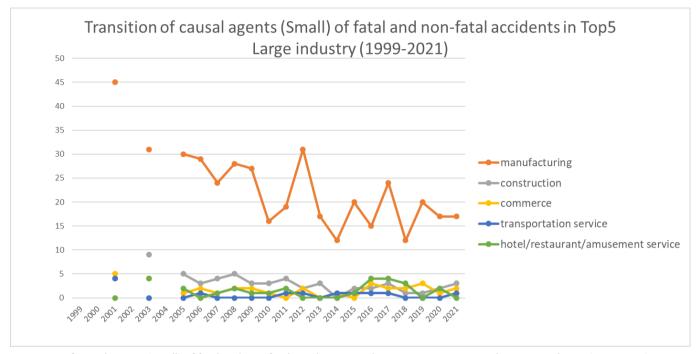
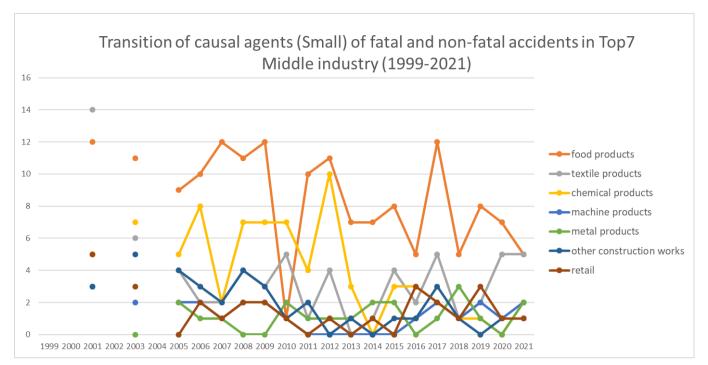
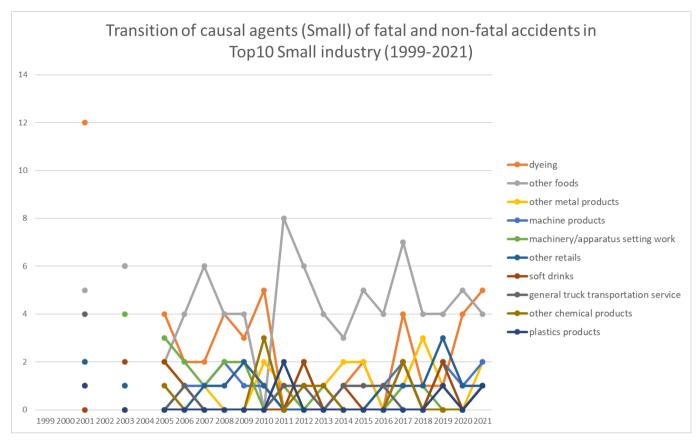
Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 312 pressure vessel (1999-2021)



Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 312 pressure vessel in Large industry (1999-2021)



Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 312 pressure vessel in Middle Industry (1999-2021)



Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 312 pressure vessel in Small Industry (1999-2021)

Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 312 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			45		31		30	29	24	28	27	16	19	31	17	12	20	15	24	12	20	17	17	434	manufacturing
03	construction			4		9		5	3	4	5	3	3	4	2	3		2	2	3	1	1	2	3	59	construction
08	commerce			5		4		1	2	1	2	2	1		2		1		3	2	2	3	1	2	34	commerce
04	transportation service			4					1					1	1		1	1	1	1				1	12	transportation service
14	hotel/restaurant/amusement					4		2		1	2	1	1	2				1	4	4	2		2		27	hotel/restaurant/amusement
11	service												ľ					•	T							service
13	health and hygiene service			2		1		1	1	1	2		1	1	1	1	3	1	2		1	2			21	health and hygiene service
	commercial cleaning and																									commercial cleaning and

15	livestock process			2	2	1	3		1	2	2	1	3		1	1			1	1		21	livestock process
17	others		4	1		1						1	2		1	2	3	2				17	others
12	education/research service						1		2			2							1			6	education/research service
02	mining				1										1			1				3	mining
07	livestock/fishery					1								1			1					3	livestock/fishery
05	cargo handling service		1																1			2	cargo handling service
06	agriculture														1	1						2	agriculture
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		65	52	42	39	35	39	36	24	29	41	26	18	29	31	38	22	29	23	23	641	total

Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 312 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
0101	food products			12		11		9	10	12	11	12	1	10	11	7	7	8	5	12	5	8	7	5	163	food products
0102	textile products			14		6		4	2	2	4	3	5	1	4		1	4	2	5	1	2	5	5	70	textile products
0108	chemical products			5		7		5	8	2	7	7	7	4	10	3		3	3	2	1	1		2	77	chemical products
0113	machine products			3		2		2	2	1	2	2	1						1	2	1	2	1	2	24	machine products
0112	metal products			3				2	1	1			2	1	1	1	2	2		1	3	1		2	23	metal products
0303	other construction works			3		5		4	3	2	4	3	1	2		1		1	1	3	1		1	1	36	other construction works
0802	retail			5		3			2	1	2	2	1		1		1		3	2	1	3	1	1	29	retail
0302	construction work			1		2		1			1		1	2	2	2		1				1		1	15	construction work

0403	road cargo transportation service		4			1					1	1		1	1	1	1				1	12	road cargo transportation service
0301	civil engineering work			2			2			1						1				1	1	8	civil engineering wor
0104	wood products										1				1						1	3	wood products
0804	other commerce				1																1	2	other commerce
0117	other manufacturing		1		3	2	2	2	1		1	1	3	1		2	2		2	3		26	other manufacturing
1501	commercial cleaning and livestock			2	2	1	3		1	2	2	1	3		1	1			1	1		21	commercial cleaning
1702	others		4	1		1						1	2		1	2	3	2				17	others
1301	medical treatment service		1		1	1	1	1		1	1	1	1	3		1		1	2			16	medical treatment service
1402	restaurant			2	1			1		1	2				1	2	3	2		1		16	restaurant
0109	sand and stone products		2	1	2	1	2		1						2					1		12	sand and stone products
0115	transport equipment products		1	1	1		2	1						1					3			10	transport equipmen
0106	pulp/paper processing products		2	2	1			1								1						7	pulp/paper processi products
1401	hotel			1	1		1		1							2		1				7	hotel
0114	electrical equipment products			1		2						1	2									6	electrical equipment
1201	education/research service						1		2			2							1			6	education/research service
0103	fiber products		1			1			1		1								1			5	fiber products
0111	nonferrous metal making		1									2				1						4	nonferrous metal making
1302	social welfare facility		1	1		Ï		1								1						4	social welfare facility

1403	other amusement service			1			1							1			1	4	other amusement service
0202	quarrying				1							1			1			3	quarrying
0701	livestock					1					1			1				3	livestock
0801	wholesale			1					1						1			3	wholesale
0110	steel making								1	1								2	steel making
0602	forestry											1	1					2	forestry
0105	furniture														1			1	furniture
0116	electric/gas/water service				1													1	electric/gas/water service
0501	land cargo handling service		1															1	land cargo handling service
0502	harbor transportation service															1		1	harbor transportation
1303	other health and hygiene service											1						1	other health and hygiene service
0107	printing/bookbinding																		printing/bookbindin
0201	coal mining																		coal mining
0203	other mining																		other mining
0401	railroad/water transportation/airline service																		railroad/water transportation/airlin service
0402	road passenger transport service																		road passenger transport service
0404	other transportation service																		other transportation service
0601	agriculture																		agriculture

0702	fishery																						fishery
0803	haircut/beauty salon																						haircut/beauty salon
0901	financial business																						financial business
0902	advertisement and mediator																						advertisement and
0,02	advertisement and mediator																						mediator
1001	movie/play service																						movie/play service
1101	telecommunication service																						telecommunication
	telecommunication service																						service
1601	public office																						public office
1701	dispatch service																						dispatch service
	total		65	52	42	39	35	39	36	24	29	41	26	18	29	31	38	22	29	23	23	641	total

Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 312 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
010204	dyeing			12		6		4	2	2	4	3	5		2		1	2		4	1	1	4	5	58	dyeing
010109	other foods			5		6		2	4	6	4	4		8	6	4	3	5	4	7	4	4	5	4	85	other foods
011209	other metal products			2				2	1	1			2	1	1	1	2	2		1	3	1		2	22	other metal products
011301	machine products			2		1			1	1	2	1	1						1	2		2	1	2	17	machine products
030302	machinery/apparatus setting work			1		4		3	2	1	2	2		1		1				1	1			1	20	machinery/apparatus setting work
080209	other retails			2		1				1	1	2	1						1	1	1	3	1	1	16	other retails
010106	soft drinks					2		2	1						2		1			2		2		1	13	soft drinks
040301	general truck transportation service			4					1					1	1		1	1	1					1	11	general truck transportation service
010899	other chemical products			1				1					3		1	1				2				1	10	other chemical products
010805	plastics products			1										2								1		1	5	plastics products
$\overline{}$								\equiv	\equiv		i						i	i	i	i	i			i —		

030102	tunnel construction work			1						1											1	3	tunnel construction work
030203	building facility construction work												2								1	3	building facility construction work
010401	lumbering										1										1	2	lumbering
080409	other commerce				1																1	2	other commerce
010801	non organic or organic chemical products		1	3	1	6	1	1	4	4		5	1		1	1						29	non organic or organic
010806	rubber products		2	3	1	2	1	6	1		1	2	1		2	2						24	rubber products
010101	meat/dairy products		3	1	1	1	2		2			1	2	1	2		1	1				18	meat/dairy products
140201	general restaurant			2	1			1		1	2				1	2	3	2		1		16	general restaurant
150101	building maintenance service			1	2	1	3		1	2	1	1	3						1			16	building maintenance service
170209	others		3	1		1						1	2		1	2	3	2				16	others
010102	fishery products		2	1	1	1		3	1	1	1	2			1		1					15	fishery products
010104	bread/cake products		1		1	2	1	3	2					2		1			1	1		15	bread/cake products
030309	other construction works		2	1	1		1	2	1	1	1				1	1	2			1		15	other construction works
010103	agricultural food products		1	1	1		3		3										1	1		11	agricultural food products
011709	other manufacturing		1		1	2	1	1	1				2							1		10	other manufacturing
130101	hospital		1		1	1	1	1			1	1	1	2								10	hospital
011701	auto mobile servicing				1		1	1				1	1				1		1	1		8	auto mobile servicing
030209	other building construction work			2	1			1		1	1	1							1			8	other building construction work
010901	cement products		1	1	2		1		1						1							7	cement products
080204	fuel retail		2					1				1		1		1	1					7	fuel retail
140101	hotel			1	1		1		1							2		1				7	hotel
010105	alcoholic drinks				1	1		1			1		1				1					6	alcoholic drinks
010209	other textile products		1									2			2	1						6	other textile products
010803	pharmaceuticals			1	1				1		1	1						1				6	pharmaceuticals

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011305	other precision machine products		1		1	1	1			1									1			6	other precision machine products
120109	other education/research service							1		2			2							1		6	other education/research
010601	pulp/paper		1		2	1			1													5	pulp/paper
011502	auto mobile products				1	1		2	1													5	auto mobile products
011703	cleaning											1			1		1	1		1		5	cleaning
150102	industrial waste management service				1							1				1	1				1	5	industrial waste management service
010203	weaving																1	1		1	1	4	weaving
130109	other medical treatment service										1								1	2		4	other medical treatment service
130201	social welfare facility		1		1				1								1					4	social welfare facility
010309	other fiber products						1					1								1		3	other fiber products
010909	other sand and stone products		1													1					1	3	other sand and stone
011403	electronics equipment and telecommunications apparatus						1							2								3	electronics equipment and telecommunications
011501	ship building		1												1					1		3	ship building
011702	machine repair					1											1				1	3	machine repair
030199	other civil engineering work							2													1	3	other civil engineering work
	steel frame/reinforced concrete house construction work											1	1			1						3	steel frame/reinforced concrete house construction work
070101	livestock						1								1			1				3	livestock
080201	all kinds of retail				1		1										1					3	all kinds of retail
	11		11	11			11	11	11							11	11			11	. 7	11	1

080202	auto mobile retail		1	1		1													3	auto mobile retail
140309	other amusement service			1											1			1	3	other amusement service
010301	over/under wear		1					1											2	over/under wear
010602	paper processing products		1											1					2	paper processing products
010809	chemical fertilizer products				1					1									2	chemical fertilizer products
011001	steel/iron/rolling products									1	1								2	steel/iron/rolling products
011101	nonferrous metals/rolling products		1							1									2	nonferrous metals/rolling products
011401	heavy electrical equipment			1		1													2	heavy electrical equipment
011509	other transport equipment products																2		2	other transport equipment products
020201	quarrying				1								1						2	quarrying
060201	lumbering												1	1					2	lumbering
080109	other wholesale			1												1			2	other wholesale
130102	general clinic											1		1					2	general clinic
010201	silk-reeling		1																1	silk-reeling
010202	cotton-spinning								1										1	cotton-spinning
010409	other lumber and wood products												1						1	other lumber and wood products
010502	metal furniture															1			1	metal furniture
010802	chemical fiber							1											1	chemical fiber
010902	glass products						1												1	glass products
010905	other ceramic products					1													1	other ceramic products
011102	nonferrous metals casting products													1					1	nonferrous metals casting products
011109	other nonferrous metal products									1									1	other nonferrous metal products

011203	metal press products		1														1	metal press products
011302	measuring instruments				1												1	measuring instruments
011409	other electrical equipment								1								1	other electrical equipment
011602	city gas service				1												1	city gas service
020202	gravel digging													1			1	gravel digging
030106	road construction work			1													1	road construction work
030111	port/seaside construction work											1					1	port/seaside construction work
030202	wooden house construction work		1														1	wooden house construction
030301	electricity/telecommunication work					1											1	electricity/telecommunication work
040303	cargo/ light automobile transportation service												1				1	cargo/ light automobile transportation service
050101	land cargo handling service		1														1	land cargo handling service
050202	port cargo handling service														1		1	port cargo handling service
080101	all kinds of wholesale								1								1	all kinds of wholesale
130301	bathhouse										1						1	bathhouse
140301	golf course						1										1	golf course
170201	security service		1														1	security service
010402	plywood																	plywood
010501	wood furniture																	wood furniture
010503	fittings																	fittings
010509	other furniture																	other furniture
010609	other pulp/paper processing products																	other pulp/paper processing products
010701	printing service																	printing service

				_	_					1					
010702	bookbinding														bookbinding
010709	other printing and														other printing and
	bookbinding														bookbinding
010804	petroleum/coal products														petroleum/coal products
010807	leather products														leather products
010808	painting products														painting products
010903	pottery products														pottery products
010904	fire resisting products														fire resisting products
011002	casting products														casting products
011009	other steel products														other steel products
011201	western tableware/cutting														western tableware/cutting
011201	tool products														tool products
011202	screw products														screw products
011204	metal plating products														metal plating products
011303	optical instruments														optical instruments
011304	watch products														watch products
011402	electrical appliance														electrical appliance
011503	railway vehicle products														railway vehicle products
011601	electric utility service														electric utility service
011603	city water service											ĺ			city water service
011600	other electric/gas/water												ĺ		other electric/gas/water
011609	service														service
011704	tobacco products														tobacco products
020101	general coal mining														general coal mining
020109	other coal mining														other coal mining
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
030103	subway construction work													subway construction work
030104	railway construction work													railway construction work
030105	bridge construction work							ĺ				Ĭ		bridge construction work
030107	river civil engineering work							ĺ						river civil engineering work
030108	sand collapse prevention civil engineering work													sand collapse prevention civil engineering work
030109	land consolidation civil engineering work													land consolidation civil engineering work
030110	water supply/sewage construction work													water supply/sewage construction work
040101	railroad service													railroad service
040102	water transportation service													water transportation service
040103	airline service													airline service
040201	taxi service													taxi service
040202	bus service													bus service
040209	other passenger transport service													other passenger transport service
040302	specific truck transportation service													specific truck transportation service
040309	other land cargo transportation service													other land cargo transportation service
040409	other transportation service													other transportation service

050201	general harbor transportation service	general harbor transportation
050209		other harbor transportation
	service	service
060101	agriculture	agriculture
060209	other forestry	other forestry
070201	fishery	fishery
070209	other fishery	other fishery
080102	furniture/fittings wholesale	furniture/fittings wholesale
080203	furniture/fittings retail	furniture/fittings retail
080205	newspaper retail	newspaper retail
080301	haircut	haircut
080302	beauty salon	beauty salon
080401	warehousing	warehousing
090101	banking/trust business	banking/trust business
090102	stock/commodity trade	stock/commodity trade
030102	business	business
090103	insurance business	insurance business
090109	other financial business	other financial business
090201	traveling service	traveling service
090209	other advertisement and	other advertisement and
	mediator	mediator
100101	movie production and	movie production and
	delivery service	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
130309	other health and hygiene service																						other health and hygiene service
140209	other restaurants																						other restaurants
140302	park and amusement park																						park and amusement park
150103	other waste disposal service																						other waste disposal service
150104	cremation service																						cremation service
150105	livestock process service																						livestock process service
150109	other cleaning and livestock process service																						other cleaning and livestock process service
160101	public office																						public office
170101	dispatch service																						dispatch service
170202	information processing service																						information processing service
	total		65	52	42	39	35	39	36	24	29	41	26	18	29	31	38	22	29	23	23	641	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