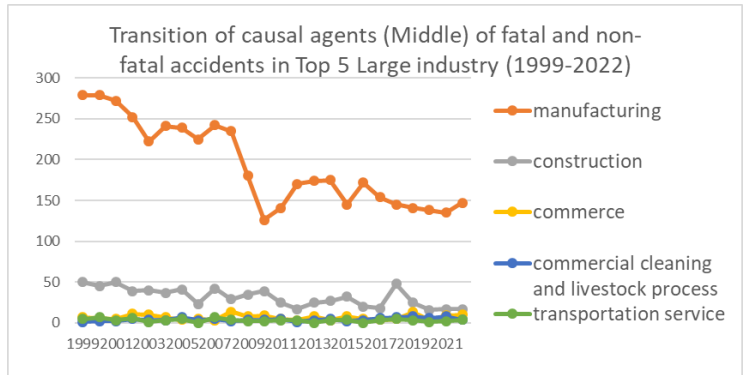
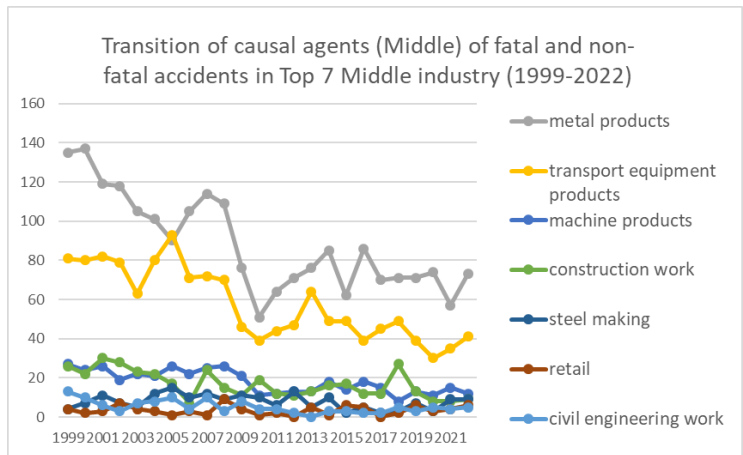


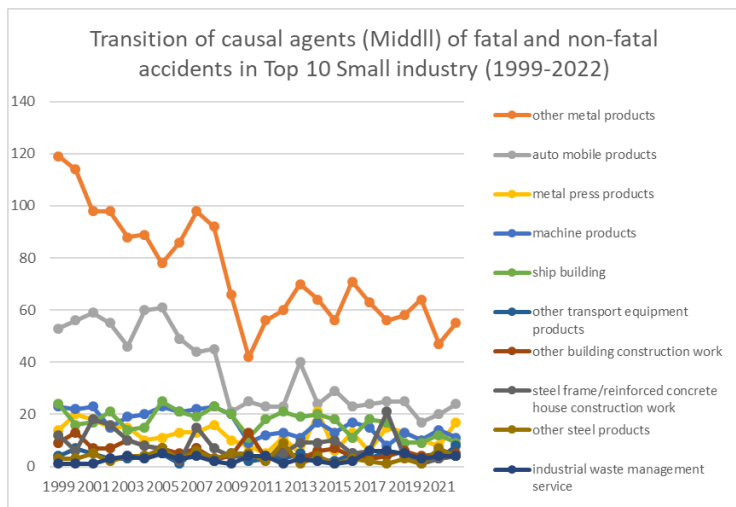
Transition of causal agents (Middle) of fatal and non-fatal accidents as code no. 33 welding equipment (1999-2022)



Transition of causal agents (Middle) of fatal and non-fatal accidents as code no. 33 welding equipment in Large industry (1999-2022)



Transition of causal agents (Middle) of fatal and non-fatal accidents as code no. 33 welding equipment in Middle Industry (1999-2022)



Transition of causal agents (Middle) of fatal and non-fatal accidents as code no. 33 welding equipment in Middle Industry (1999-2022)

Transition of causal agents (Middle) of fatal and non-fatal accidents as code no. 33 welding equipment in Large industry (1999-2022)

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	2022	total	Large industry
01	manufacturing	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	manufacturing
03	construction	50	45	50	39	40	37	41	23	42	29	35	39	25	17	25	27	32	20	18	48	25	16	17	17	757	construction
08	commerce	7	6	5	11	10	7	4	5	3	14	8	9	5	3	8	3	8	5	4	5	13	3	9	10	165	commerce
15	commercial cleaning and livestock process	1	2	2	5	4	3	7	3	5	2	4	4	5	1	3	5	2	3	6	7	8	6	8	4	100	commercial cleaning and livestock process
04	transportation service	5	7	3	6	1	3	5		7	4	2	2	3	3		3	4		4	5	3	1	2	4	77	transportation service
17	others	4	2	6	4	2	6	5	2	2	2	4	2	1	2	1	2	1	5	1	2	1		1	4	62	others
02	mining	6	1	1	1	1		2	1			1		1		1	1						2	1	2	22	mining
07	livestock/fishery	1	1		1	1	2					1	1	1		2	1				1			1	1	15	livestock/fishery
13	health and hygiene service																		1			1			1	3	health and hygiene service
05	cargo handling service			1	3	1		1			1				1		1					3				12	cargo handling service
14	hotel/restaurant/amusement service			3				1	1										1			1		1		8	hotel/restaurant/amusement service
09	financial business/advertisement	1	1																				2			4	financial business/advertisement
06	agriculture												1									1				2	agriculture
11	telecommunication service								1					1												2	telecommunication service
12	education/research service	1																1								2	education/research service
10	movie/play service																										movie/play service
16	public office																										public office
	total	355	344	343	322	282	299	305	261	301	287	235	184	183	197	214	218	193	207	187	214	196	168	175	190	5,860	total

Transition of causal agents (Middle) of fatal and non-fatal accidents as code no. 33 welding equipment in Middle industry (1999-2022)

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	2022	total	Middle industry
0112	metal products	135	137	119	118	105	101	90	105	114	109	76	51	64	71	76	85	62	86	70	71	71	74	57	73	2,120	metal products

0115	transport equipment products	81	80	82	79	63	80	93	71	72	70	46	39	44	47	64	49	49	39	45	49	39	30	35	41	1,387	transport equipment products	
0113	machine products	27	24	26	19	22	21	26	22	25	26	21	11	12	13	13	18	14	18	15	8	13	11	15	12	432	machine products	
0302	construction work	26	22	30	28	23	22	17	7	24	15	11	19	12	11	13	16	17	12	12	27	13	8	8	9	402	construction work	
0110	steel making	4	7	11	7	5	12	15	10	12	9	11	10	6	13	5	10	2	5	2	3	7	3	9	9	187	steel making	
0802	retail	4	2	3	7	4	3	1	3	1	9	4	1	2		5	1	6	5		2	6	3	4	6	82	retail	
0301	civil engineering work	13	10	6	3	7	8	10	4	10	3	8	4	4	2		3	3	2	2	5	3	5	4	5	124	civil engineering work	
0114	electrical equipment products	6	5	5	8	7	6	4	5	6	7	1	4	4	8	3	6	3	5	7	1	1	3	4	5	114	electrical equipment products	
0117	other manufacturing	15	17	20	14	12	14	6	9	8	10	16	4	7	10	11	2	9	5	8	5	5	11	11	4	233	other manufacturing	
1501	commercial cleaning and livestock process	1	2	2	5	4	3	7	3	5	2	4	4	5	1	3	5	2	3	6	7	8	6	8	4	100	commercial cleaning and livestock process	
0303	other construction works	11	13	14	8	10	7	14	12	8	11	16	16	9	4	12	8	12	6	4	16	9	3	5	3	231	other construction works	
0801	wholesale	3	4	1	2	4	3	3	1	2	5	2	7	3	1	2			3	2	4		3	3	60	wholesale		
0403	road cargo transportation service	3	3	3	4	1	3	3		7	3	2	1	1	2		2	3		3	5	1	1	2	3	56	road cargo transportation service	
1702	others	3	1	5	4	2	6	5	2	1	2	3	2	1			2	1	4		2			1	3	50	others	
0202	quarrying	6	1	1	1	1		2	1			1		1		1							2	1	2	22	quarrying	
0108	chemical products	6		1			3	1					3		1		1		4	1	4		2		1	28	chemical products	
0111	nonferrous metal making	1	3	1		1	1			1		2	1	1	4	1	1		4			1			1	24	nonferrous metal making	
0804	other commerce			1	2	2	1		1			2	1		2	1		2		1	1	3		2	1	23	other commerce	
1701	dispatch service	1	1	1						1		1			2	1			1	1		1			1	12	dispatch service	
0401	railroad/water transportation/airline service		1		1			1						1			1			1					1	7	railroad/water transportation/airline service	
0103	fiber products													1						1					1	3	fiber products	
0702	fishery						1							1											1	3	fishery	
1302	social welfare facility																					1			1	2	social welfare facility	
0109	sand and stone products	2	4	3	5	4		3	1	1	2	2	1	1	1		2	4	2	1	3	3	3	2		50	sand and stone products	
0105	furniture		1	1	2				2	2		1	1					2	3	2				1		18	furniture	
0101	food products	2		2		2	1			1	1	2	1	1	1												14	food products
0402	road passenger transport service	2	3		1						1		1	1	1			1				2				13	road passenger transport service	
0701	livestock	1	1		1	1	1					1	1			2	1				1			1		12	livestock	
0104	wood products						1					2			1					2				1		7	wood products	
0501	land cargo handling service			1	2	1											1					2				7	land cargo handling service	
0102	textile products		1			1					1								1			1	1			6	textile products	
0107	printing/bookbinding			1			1	1									1				1					5	printing/bookbinding	
0502	harbor transportation service				1			1			1				1							1				5	harbor transportation service	

150102	industrial waste management service	1	1	1	3	4	3	5	3	4	2	1	4	4	1	3	2	1	2	6	6	5	3	4	4	73	industrial waste management service	
011001	steel/iron/rolling products	1	4	5	3		6	7	5	4	4	3	3	3	3	3		1		2	1	2	1	4	68	steel/iron/rolling products		
030199	other civil engineering work	6	4	5	3	2	3	5	2	8	1	4	2	3	1		2	2	2	2	3	1	2	1	4	68	other civil engineering work	
080209	other retails	3	1	3	5	2	2	1		1	4	2	1	1		2		5	3		2	3	3	2	4	50	other retails	
080109	other wholesale	2	4	1	2	4	3	3	1	2	5	2	6	3	1	2	2			3	2	4		3	3	58	other wholesale	
011709	other manufacturing	6	2	3	4	1	5	1	1	1	3	2		3	2	3		2		2	2	2	2		3	50	other manufacturing	
040301	general truck transportation service	3	2	2	4		3	3		7	3	2	1	1	2		2	2		2	4	1	1	2	3	50	general truck transportation service	
030309	other construction works	8	4	6	5	9	2	5	6	2	6	6	4	3	3	8	5	7	4	3	5	5	1	5	2	114	other construction works	
011409	other electrical equipment	4	3	1	4	5	3	3	3	3	3		2	3	5		1	1	3	1	1	1	2		2	54	other electrical equipment	
170209	others	3	1	5	4	2	6	5	2	1	2	2	2	1			2	1	4		2			1	2	48	others	
011401	heavy electrical equipment	2	1	2	1		2		1	3	1		2	1			3			2				1	2	24	heavy electrical equipment	
080202	auto mobile retail		1		1	2	1		1		3	2		1		2	1		1			3		1	2	22	auto mobile retail	
020201	quarrying	5	1	1	1	1		2	1			1		1		1	1						1	1	2	20	quarrying	
030302	machinery/apparatus setting work	3	6	5	3		3	6	5	3	4	9	12	5	1	3	2	5	2	1	1	3	1		1	84	machinery/apparatus setting work	
011702	machine repair	3	5	10	3	1		2	1		2	2		2	2	4		2	2	1			1	1	1	45	machine repair	
011305	other precision machine products	4	1	3	4	2		3	1	3	2	1	1			2	1	1					1	1	1	32	other precision machine products	
011002	casting products			1	2	1	2	1	2	2	2	3	2	1	1	1	3	1	1			3		1	1	31	casting products	
080409	other commerce			1	1	2	1		1			2	1		2			2		1	1	2		2	1	20	other commerce	
010805	plastics products	5		1			1	1					2						2	1	2		2		1	18	plastics products	
011402	electrical appliance			1	1	2			1		1				1	1	1	2	2	3					1	17	electrical appliance	
011201	western tableware/cutting tool products	2	1	1	2	1	1	1		1			1							1				1	1	15	western tableware/cutting tool products	
170101	dispatch service	1	1	1						1		1				2	1			1	1				1	12	dispatch service	
030110	water supply/sewage construction work		2	1		2			1				1											1	1	1	10	water supply/sewage construction work
011101	nonferrous metals/rolling products		2											1		1									1	5	nonferrous metals/rolling products	
010309	other fiber products													1						1					1	3	other fiber products	
040101	railroad service				1			1																	1	3	railroad service	
130201	social welfare facility																				1			1	2	social welfare facility		
170201	security service											1													1	2	security service	
070201	fishery																								1	1	fishery	
011701	auto mobile servicing	6	10	7	7	10	9	3	7	7	5	12	4	2	5	4	2	5	3	5	3	3	8	10		137	auto mobile servicing	
030203	building facility construction work	5	2	3	4	3	5	2		2	4	3	2	3			1		2	2	2	2	3			50	building facility construction work	
030301	electricity/telecommunication work		3	3		1	2	3	1	3	1	1		1		1	1				10	1	1			33	electricity/telecommunication work	
010901	cement products	1	1	2	4	2		2	1	1	2	1	1		1		1	1	1		3	2	2	1		30	cement products	
011403	electronics equipment and telecommunications apparatus		1	1	2		1	1			2	1			2	2	1			1			1	3		19	electronics equipment and telecommunications apparatus	

150103	other waste disposal service		1	1	2			1				1	1			2	1	1		1	3	2	2		19	other waste disposal service
010502	metal furniture		1	1	2			1	1		1	1					2	3	1				1		15	metal furniture
011109	other nonferrous metal products	1		1			1			1		2	1	3	1			3			1				15	other nonferrous metal products
030106	road construction work	3	3			1	3	1				2					1							1	15	road construction work
030202	wooden house construction work		1	2	1		1	1			1			2		1		1	1		1				13	wooden house construction work
011202	screw products				3	1			1	1	1			3				2							12	screw products
011204	metal plating products		2	2			1		5	1														1	12	metal plating products
011503	railway vehicle products		1	1			1	2		2			1			2				1		1			12	railway vehicle products
070101	livestock	1	1		1	1	1					1	1			2	1			1			1		12	livestock
010909	other sand and stone products	1			1	2						1		1			3	1	1						11	other sand and stone products
080204	fuel retail	1			1				2		2					1			1				1		9	fuel retail
040202	bus service	2	2									1	1	1								1			8	bus service
010109	other foods	2		1					1		2		1												7	other foods
010902	glass products		2					1								1						1	1	1	7	glass products
030109	land consolidation civil engineering work	1								2			1	1						1			1		7	land consolidation civil engineering work
030111	port/seaside construction work	1						3	1					1								1			7	port/seaside construction work
050101	land cargo handling service			1	2	1										1						2			7	land cargo handling service
010209	other textile products		1								1							1				1	1		5	other textile products
010899	other chemical products					1							1		1					2					5	other chemical products
030105	bridge construction work	1				1				1	1									1					5	bridge construction work
040201	taxi service		1		1						1						1					1			5	taxi service
011102	nonferrous metals casting products		1			1										1		1							4	nonferrous metals casting products
011302	measuring instruments		1			1						1						1							4	measuring instruments
030102	tunnel construction work	1	1			1	1																		4	tunnel construction work
050202	port cargo handling service							1			1					1						1			4	port cargo handling service
150101	building maintenance service								1		2													1	4	building maintenance service
150109	other cleaning and livestock process service							1								1							1	1	4	other cleaning and livestock process service
010402	plywood										1								2						3	plywood
010701	printing service					1	1													1					3	printing service
010809	chemical fertilizer products	1				1												1							3	chemical fertilizer products
030101	hydroelectric plant construction work										1											2			3	hydroelectric plant construction work
030104	railway construction work					1					1											1			3	railway construction work
040102	water transportation service		1													1			1						3	water transportation service
040302	specific truck transportation service			1													1			1					3	specific truck transportation service
040309	other land cargo transportation service		1			1													1						3	other land cargo transportation service

080401	warehousing			1										1					1				3	warehousing
090209	other advertisement and mediator	1	1																	1			3	other advertisement and mediator
140201	general restaurant															1			1		1		3	general restaurant
010106	soft drinks					1				1													2	soft drinks
010401	lumbering									1				1									2	lumbering
010409	other lumber and wood products					1															1		2	other lumber and wood products
010509	other furniture							1											1				2	other furniture
011303	optical instruments					1				1													2	optical instruments
020202	gravel digging	1																			1		2	gravel digging
030107	river civil engineering work						1									1							2	river civil engineering work
070209	other fishery					1								1									2	other fishery
080101	all kinds of wholesale	1												1									2	all kinds of wholesale
110101	telecommunication service							1						1									2	telecommunication service
120109	other education/research service	1														1							2	other education/research service
140301	golf course			1				1															2	golf course
010101	meat/dairy products													1									1	meat/dairy products
010102	fishery products															1							1	fishery products
010103	agricultural food products			1																			1	agricultural food products
010104	bread/cake products					1																	1	bread/cake products
010105	alcoholic drinks					1																	1	alcoholic drinks
010204	dyeing					1																	1	dyeing
010501	wood furniture									1													1	wood furniture
010609	other pulp/paper processing products															1							1	other pulp/paper processing products
010702	bookbinding																						1	bookbinding
010709	other printing and bookbinding			1																			1	other printing and bookbinding
010801	non organic or organic chemical products																						1	non organic or organic chemical products
010806	rubber products																						1	rubber products
010903	pottery products			1																			1	pottery products
010904	fire resisting products		1																				1	fire resisting products
011703	cleaning													1									1	cleaning
040103	airline service															1							1	airline service
040409	other transportation service							1															1	other transportation service
050209	other harbor transportation service					1																	1	other harbor transportation service
060101	agriculture																						1	agriculture
060209	other forestry													1									1	other forestry
080201	all kinds of retail																						1	all kinds of retail
090103	insurance business																						1	insurance business

