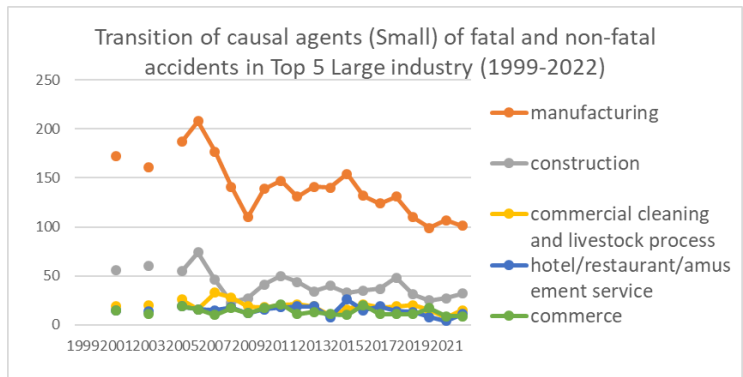
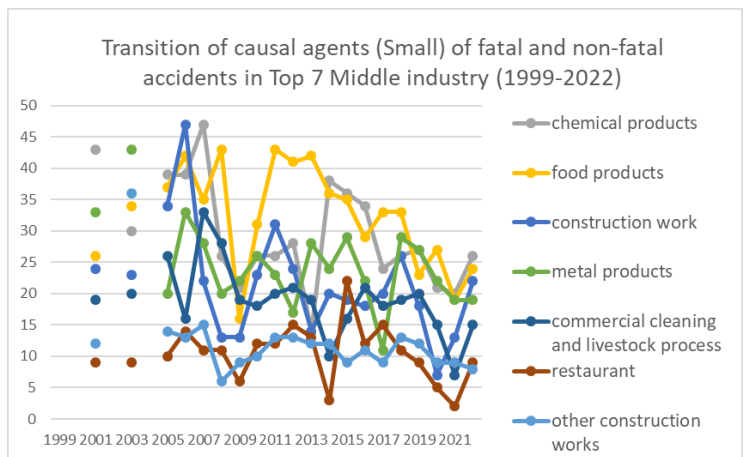


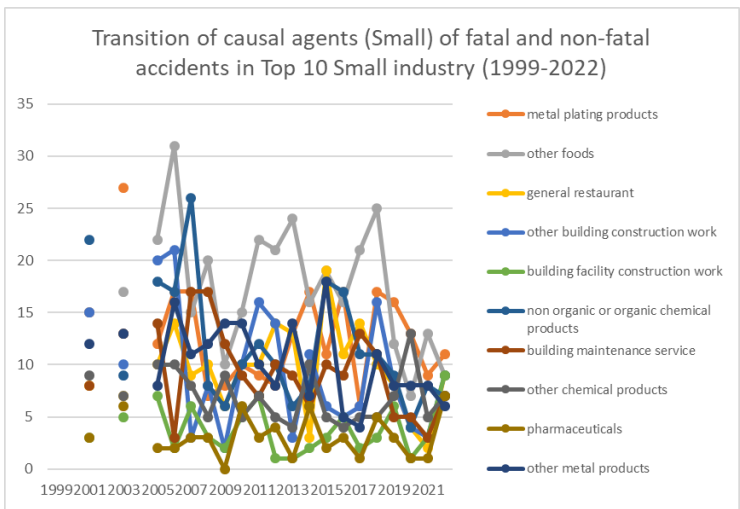
Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 514 harmful substance (1999-2022)



Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 514 harmful substance in Large industry (1999-2022)



Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 514 harmful substance in Middle Industry (1999-2022)



Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 514 harmful substance in Small Industry (1999-2022)

Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 514 harmful substance 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			172		161		187	208	177	141	110	139	147	131	141	140	154	132	124	131	110	99	107	101	2,812	manufacturing	
03	construction			56		60		55	74	46	23	27	41	50	44	34	40	33	35	37	48	31	25	27	32	818	construction	
15	commercial cleaning and livestock process			19		20		26	16	33	28	19	18	20	21	19	10	16	21	18	19	20	15	7	15	380	commercial cleaning and livestock process	
14	hotel/restaurant/amusement service			15		14		19	16	15	18	12	16	18	19	19	8	26	15	19	14	13	8	4	11	299	hotel/restaurant/amusement service	
08	commerce			15		11		19	16	10	17	12	17	21	11	13	11	10	20	11	11	11	17	9	9	271	commerce	
04	transportation service			16		15		14	9	12	19	10	9	14	6	2	3	6	5	6	6	4	15	6	8	185	transportation service	
13	health and hygiene service			17		6		7	16	5	8	10	9	4	8	6	7	7	6	9	9	8	1	6	7	156	health and hygiene service	
17	others			9		10		5	18	7	6	7	4	10	5	5	3	15	6	4	9	7	8	4	4	146	others	
06	agriculture			3				2			1	2		2	3		1	3	1	2	1	1	1	2	3	28	agriculture	
12	education/research service			1		5		5	3	5	5	4	5	3	1	3	2	1	3	4	3	3	2	1	2	61	education/research service	
07	livestock/fishery			1		1		2	1	4	2	1	3	4	4	4	3	7	5	1	7	3		2	2	57	livestock/fishery	
05	cargo handling service			3		3			2	6	4			1	1	12	1			1	1	1	1		1	38	cargo handling service	
09	financial business/advertisement			2					1						1		1			1		1		1		8	financial business/advertisement	
02	mining			1		1							1							1						4	mining	
11	telecommunication service												1						1							2	telecommunication service	
10	movie/play service												1													1	movie/play service	
16	public office																										1	public office
	total			330		307		341	380	320	272	214	264	294	255	258	230	278	250	238	259	213	192	176	195	5,266	total	

Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 514 harmful substance 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
0108	chemical products			43		30		39	39	47	26	21	26	26	28	14	38	36	34	24	26	27	21	20	26	591	chemical products

0101	food products			26		34		37	42	35	43	16	31	43	41	42	36	35	29	33	33	23	27	19	24	649	food products
0302	construction work			24		23		34	47	22	13	13	23	31	24	14	20	19	18	20	26	18	7	13	22	431	construction work
0112	metal products			33		43		20	33	28	20	22	26	23	17	28	24	29	22	11	29	27	22	19	19	495	metal products
1501	commercial cleaning and livestock process			19		20		26	16	33	28	19	18	20	21	19	10	16	21	18	19	20	15	7	15	380	commercial cleaning and livestock process
1402	restaurant			9		9		10	14	11	11	6	12	12	15	13	3	22	12	15	11	9	5	2	9	210	restaurant
0303	other construction works			12		36		14	13	15	6	9	10	13	13	12	12	9	11	9	13	12	9	9	8	245	other construction works
0114	electrical equipment products			11		7		11	20	14	7	7	13	10	8	4	6	9	6	13	7	7	5	9	8	182	electrical equipment products
0403	road cargo transportation service			13		13		12	9	10	18	10	7	12	6	2	3	4	5	5	6	4	15	6	7	167	road cargo transportation service
0115	transport equipment products			7		7		16	21	12	9	5	6	6	4	6	7	13	6	11	4	4	7	10	6	167	transport equipment products
0113	machine products			10		8		14	11	14	4	12	12	8	3	5	7	7	7	5	6	5	5	7	6	156	machine products
0802	retail			7		6		9	11	7	11	9	13	13	8	10	5	8	14	3	8	10	12	4	5	173	retail
0117	other manufacturing			11		5		12	12	9	11	10	6	9	7	19	5	4	8	10	7	5	4	5	4	163	other manufacturing
0801	wholesale			3		3		6	1	2	5		2	4	3	2	4	1	2	6	3	1		2	4	54	wholesale
1702	others			9		8		5	16	5	6	7	4	10	4	5	3	14	5	4	8	7	8	4	3	135	others
1302	social welfare facility			1		2		3	4	2	5	5	4	1	5	3	3	2	1	4	6	6	1	3	3	64	social welfare facility
0601	agriculture							1			1	2		1	3		1	3		2	1	1	1	1	3	21	agriculture
0301	civil engineering work			20		1		7	14	9	4	5	8	6	7	8	8	5	6	8	9	1	9	5	2	142	civil engineering work
0111	nonferrous metal making			6		5		13	3	3	4	4	3	9	4	4	4	3	6		4		1	4	2	82	nonferrous metal making
0110	steel making			3		3		8	4	4	6	4	2	3	6	3	3	5	3	5	3	6	1	3	2	77	steel making
1301	medical treatment service			12		4		3	10	3	2	5	4	3	1	2	4	4	3	2	1	1		3	2	69	medical treatment service
0109	sand and stone products			3		6		7	6	5	6	3	2	4		1	2	3	3	3	3	4	2	3	2	68	sand and stone products
1201	education/research service			1		5		5	3	5	5	4	5	3	1	3	2	1	3	4	3	3	2	1	2	61	education/research service
1401	hotel			4		4		4	2	2	3	3	3	2	1	5	4	3	1	4	2	2	2	1	2	54	hotel
0701	livestock			1		1		1	1	3	2	1	3	4	4	4	3	6	5	1	6	3		2	2	53	livestock
1303	other health and hygiene service			4				1	2		1		1		2	1		1	2	3	2	1			2	23	other health and hygiene service
0102	textile products			8		8		4	4	1		4	1	2	7	8	2	4	3		2		1	1	1	61	textile products
0501	land cargo handling service			1		3			2	2	1								1		1	1		1		25	land cargo handling service
0104	wood products					1		2		1	1		1		1	2			1		1	1		1	1	14	wood products
0402	road passenger transport service			3		1				1	1		1	2						1					1	11	road passenger transport service
1701	dispatch service					2			2	2					1			1	1		1				1	11	dispatch service
0106	pulp/paper processing products			5		2		2	5	3	1		6	1	1	3	3	2	3	6	5			4		52	pulp/paper processing products

1403	other amusement service			2		1		5		2	4	3	1	4	3	1	1	1	2		1	2	1	1		35	other amusement service		
0804	other commerce			2		1		1	2	1		3	1	3		1	2	1	3	1			4	2		28	other commerce		
0107	printing/bookbinding			2				1			1	1	2	3	1	2	2	2		2	1	1	1	1		23	printing/bookbinding		
0803	haircut/beauty salon			3		1		3	2		1		1	1					1	1			1	1		16	haircut/beauty salon		
0502	harbor transportation service			2						4	3			1	1		1				1					13	harbor transportation service		
0116	electric/gas/water service			1				1	3				2				1	2	1					1		12	electric/gas/water service		
0105	furniture			1		1			1	1	2	1								1				1		11	furniture		
0103	fiber products			2		1			4							1									1		9	fiber products	
0602	forestry			3				1						1						1					1		7	forestry	
0401	railroad/water transportation/airline service					1		2		1								2								6	railroad/water transportation/airline service		
0702	fishery							1		1									1							4	fishery		
0901	financial business								1								1						1		1		4	financial business	
0902	advertisement and mediator			2											1										1		4	advertisement and mediator	
0202	quarrying			1		1							1														3	quarrying	
1101	telecommunication service												1												1		2	telecommunication service	
0203	other mining																								1		1	other mining	
0404	other transportation service												1														1	other transportation service	
1001	movie/play service												1														1	movie/play service	
0201	coal mining																												coal mining
1601	public office																												public office
	total			330		307		341	380	320	272	214	264	294	255	258	230	278	250	238	259	213	192	176	195	5,266	total		

Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 514 harmful substance in Small industry (1999-2022)

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	2022	total	Small industry
011204	metal plating products			15		27		12	17	17	7	8	10	9	8	13	17	11	17	6	17	16	13	9	11	260	metal plating products
010109	other foods			15		17		22	31	15	20	10	15	22	21	24	16	19	16	21	25	12	7	13	9	350	other foods
140201	general restaurant			8		7		10	14	9	10	6	10	10	14	13	3	19	11	14	10	8	4	2	9	191	general restaurant
030209	other building construction work			15		10		20	21	3	8	2	10	16	14	3	11	6	5	6	16	8	4	3	9	190	other building construction work
030203	building facility construction work			3		5		7	2	6	3	2	5	7	1	1	2	3	5	2	3	6	1	3	9	76	building facility construction work
010801	non organic or organic chemical products			22		9		18	17	26	8	6	10	12	10	6	8	18	17	11	11	9	4	8	7	237	non organic or organic chemical products
150101	building maintenance service			8		13		14	3	17	17	12	9	7	10	9	6	10	9	13	11	5	5	3	7	188	building maintenance service
010899	other chemical products			9		7		10	10	8	5	9	5	7	5	4	10	5	4	5	5	7	13	5	7	140	other chemical products
010803	pharmaceuticals			3		6		2	2	3	3		6	3	4	1	6	2	3	1	5	3	1	1	7	62	pharmaceuticals

011209	other metal products			12		13		8	16	11	12	14	14	10	8	14	7	18	5	4	11	8	8	8	6	207	other metal products
030309	other construction works			8		29		10	10	10	3	5	4	7	7	7	5	7	6	6	8	8	4	5	6	155	other construction works
040301	general truck transportation service			13		10		9	8	9	16	8	6	8	6	2	3	4	5	4	5	3	13	6	6	144	general truck transportation service
010101	meat/dairy products			3		9		3	3	7	8	1	7	1	5	8	3	7	8	3	4	6	5	4	6	101	meat/dairy products
080209	other retails			2		5		5	7	6	8	7	9	9	4	8	4	7	13	2	6	9	7	2	5	125	other retails
011502	auto mobile products			5		3		6	15	7	5	4	4	5	2	5	5	7	4	8	3	4	5	7	5	109	auto mobile products
150109	other cleaning and livestock process service			5		2		3	4	5	3	3	3	2	5	2	1	2	5	1	1	2	2	1	5	57	other cleaning and livestock process service
011301	machine products			8		7		10	6	7	3	10	8	3	2	4	3	4	6	3	6	4	3	5	4	106	machine products
011409	other electrical equipment			6		2		8	7	10	1	2	8	4	3	1	2	5	3	6	3	2	3	5	4	85	other electrical equipment
010104	bread/cake products			1				5	1	1	6		2	9	4	3	2	4	4	3	1		1	1	4	52	bread/cake products
080109	other wholesale			2		3		5	1	1	5		1	4	3	2	4	1	1	4	3	1		2	4	47	other wholesale
030201	steel frame/reinforced concrete house construction work			2		6		6	20	12	1	2	3	4	7	9	2	7	5	10	5	3	2	6	3	115	steel frame/reinforced concrete house construction work
170209	others			7		6		4	15	2	5	5	3	10	3	5	3	14	4	4	7	6	6	3	3	115	others
010102	fishery products			2		6		4	5	4	5	3	6	5	7	6	11	3		1	2	3	7		3	83	fishery products
130201	social welfare facility			1		2		3	4	2	5	5	4	1	5	3	3	2	1	4	6	6	1	3	3	64	social welfare facility
010805	plastics products			2		2		3	4	4	4	3		3	2	2	1	4	5	5	2	4			3	53	plastics products
060101	agriculture							1			1	2		1	3		1	3		2	1	1	1	1	3	21	agriculture
150102	industrial waste management service			6		1		4	6	6	7	3	6	9	5	5	3	3	5	4	7	10	7	2	2	101	industrial waste management service
011403	electronics equipment and telecommunications apparatus			4		3		2	7	4	4	4	3	5	3	3	4	4	3	5	3	4	2	4	2	73	electronics equipment and telecommunications apparatus
030302	machinery/apparatus setting work			3		6		3	2	5	2	3	4	5	4	5	3	1	5	3	4	4	5	4	2	73	machinery/apparatus setting work
120109	other education/research service			1		5		4	3	5	5	4	5	3	1	3	2	1	3	4	3	2	2	1	2	59	other education/research service
140101	hotel			4		4		4	2	2	3	3	3	2	1	5	4	3	1	4	2	2	2	1	2	54	hotel
070101	livestock			1		1		1	1	3	2	1	3	4	4	4	3	6	5	1	6	3		2	2	53	livestock
030199	other civil engineering work			8				1	6	5	2	1	4		3	6	2	2	3	3				2	2	50	other civil engineering work
011101	nonferrous metals/rolling products			3		3		9	1	1	1	1	3	6	3	3	1	2	3		4			2	2	48	nonferrous metals/rolling products
011703	cleaning					1		4	6	4	1	3	2	4		6	1		2	3	2	2			2	43	cleaning
011001	steel/iron/rolling products			3		2		4	1		4	1	1	1		2	2	2		3		5	1	2	2	36	steel/iron/rolling products
010103	agricultural food products			3		1			1	3	1	2	1	2	1	1	2	1	1	2		2	5		2	31	agricultural food products
011305	other precision machine products			1		1		1	1	2	1	1	1	1		1	2	2				1	1	1	2	20	other precision machine products
130301	bathroom														2	1			2	3	1	1			2	12	bathroom
011202	screw products			1											1							1		1	2	6	screw products
130101	hospital			6		4		2	9	3	1	5	2	2	1	1	3	3	2	2	1			3	1	51	hospital
030202	wooden house construction work			4		2		1	4	1	1	7	5	4	2	1	5	3	3	2	2	1		1	1	50	wooden house construction work

011501	ship building			2		3		6	4	4	3	1	2	1	1	1		5	2	3	1			1	1	41	ship building	
010204	dyeing			7		4		3	4			3		1		1	2	1	2				1	1	1	31	dyeing	
150103	other waste disposal service					4		4	2	5	1	1		1	1	3		1	2			3	1	1	1	31	other waste disposal service	
011701	auto mobile servicing			2				2	3	1		1	1	1		8		1	3			1	1	1	1	27	auto mobile servicing	
011702	machine repair			4		2		2	1		2	4			1	1	1	2		1	2		1	1	1	26	machine repair	
050101	land cargo handling service			1		3			2	2	1					12				1		1	1		1	25	land cargo handling service	
010806	rubber products			1		2		2	2		1			3	1	1		1	1	2		2	1	1	2	1	24	rubber products
010901	cement products			1		1		2	1	2	1	2	1	1		1	1	1	2		2	3	1		1	24	cement products	
010909	other sand and stone products					3		5	4		3											1	1	2	1	20	other sand and stone products	
010809	chemical fertilizer products			2		2		1	2	1	2					1	1	1					1	1	1	16	chemical fertilizer products	
011402	electrical appliance			1		2		1	4		2		1		1				1	1					1	15	electrical appliance	
170101	dispatch service					2			2	2					1			1	1		1				1	11	dispatch service	
010409	other lumber and wood products					1		1		1	1		1		1	2					1				1	10	other lumber and wood products	
011401	heavy electrical equipment								2			1	1	1	1					1		1			1	9	heavy electrical equipment	
130102	general clinic			2				1	1				1					1	1						1	8	general clinic	
040201	taxi service			2						1															1	4	taxi service	
040309	other land cargo transportation service							1			1														1	4	other land cargo transportation service	
011709	other manufacturing			4		2		4	2	4	8	2	3	4	6	4	3	1	3	6	3	2	2	3		66	other manufacturing	
010601	pulp/paper			2		2		2	4	2	1		3	1	1	1	1	2	2	4	5			3		36	pulp/paper	
011002	casting products					1		3	3	3		2	1	2	5		1	2	3	2	3			1		32	casting products	
080201	all kinds of retail			4		1		3	2	1	1	2	2	2	4	1				1		2	2			28	all kinds of retail	
010106	soft drinks			2		1		2	1	4	2			4	2		2	1		2	1		2	1		27	soft drinks	
010209	other textile products					4		1		1		1		1	6	7		2	1		2					26	other textile products	
030110	water supply/sewage construction work			5				2	1			3	1	1		1	2	1		2	5		1			25	water supply/sewage construction work	
011109	other nonferrous metal products			3		2		1	1		2	3		3	1		2		3				1	1		23	other nonferrous metal products	
011303	optical instruments			1				2	4	5			2	3	1			1	1	2				1		23	optical instruments	
080409	other commerce			1				1	1	1		3	1	3			2	1	3	1			3	2		23	other commerce	
140309	other amusement service			2				4			4	3		1	2	1		1	1		1	2	1			23	other amusement service	
010808	painting products			2		1		2	2	2	1	1	2				2	3				1		3		22	painting products	
011203	metal press products			5		3					1		2	3	1	1				1		2	1	1		21	metal press products	
010701	printing service			2				1			1	1	2	2	1	2	2	1		2	1	1		1		20	printing service	
170201	security service			2		2		1	1	3	1	2	1					1		1	1	2	1			20	security service	
030105	bridge construction work							1	1					2	2	1	2			2	1		7			19	bridge construction work	
040302	specific truck transportation service					3		2	1	1	1	2	1	3					1	1	1	2				19	specific truck transportation service	
140209	other restaurants			1		2				2	1		2	2	1			3	1	1	1	1	1			19	other restaurants	
010902	glass products			1		2			1	3	1	1	1	2			2	1	2	1						18	glass products	
030106	road construction work			3		1			2	2			2	2					2	1	2		1			18	road construction work	
	electricity/telecommunication																											electricity/telecommunication

