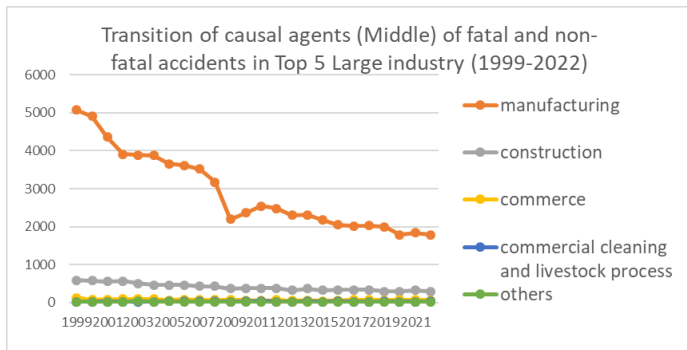
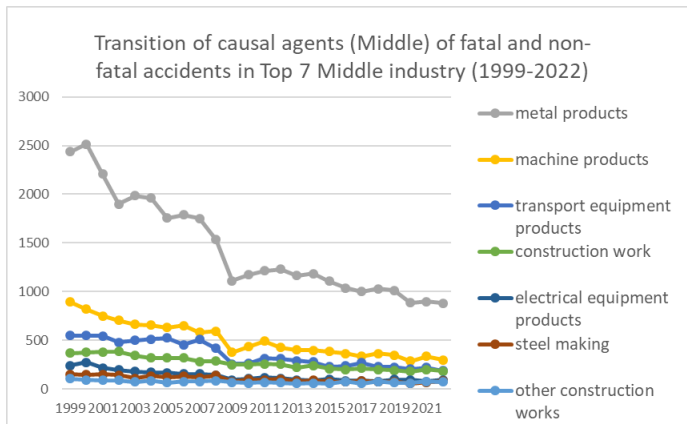


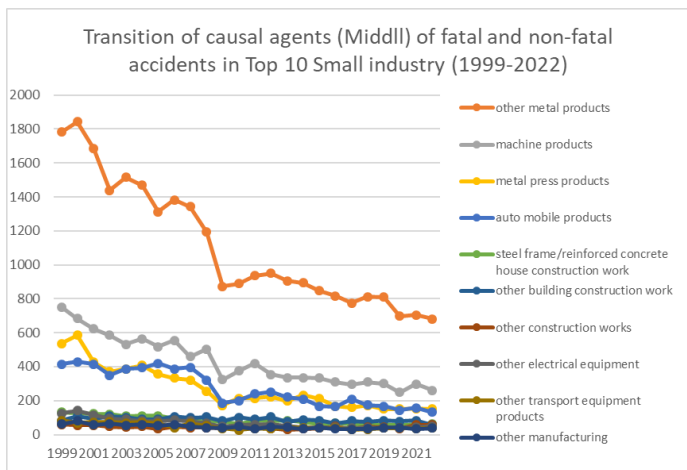
Transition of causal agents (Middle) of fatal and non-fatal accidents as code no. 15 metal manufacturing machine (1999-2022)



Transition of causal agents (Middle) of fatal and non-fatal accidents as code no. 15 metal manufacturing machine in Large industry (1999-2022)



Transition of causal agents (Middle) of fatal and non-fatal accidents as code no. 15 metal manufacturing machine in Middle Industry (1999-2022)



Transition of causal agents (Middle) of fatal and non-fatal accidents as code no. 15 metal manufacturing machine in Middle Industry (1999-2022)

Transition of causal agents (Middle) of fatal and non-fatal accidents as code no. 15 metal manufacturing machine 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	5,077	4,902	4,364	3,907	3,890	3,876	3,661	3,611	3,521	3,178	2,192	2,362	2,547	2,485	2,299	2,308	2,179	2,052	2,018	2,028	2,002	1,788	1,843	1,789	69,879	manufacturing
03	construction	586	579	559	571	510	467	463	460	434	432	371	375	381	384	327	372	332	339	339	338	299	298	330	300	9,846	construction
08	commerce	123	77	91	96	96	96	70	87	76	77	75	66	56	75	56	62	48	67	71	77	63	78	73	65	1,821	commerce
15	commercial cleaning and livestock process	25	27	27	26	28	27	32	34	37	30	20	35	40	23	28	31	28	33	23	27	33	28	28	32	702	commercial cleaning and livestock process
17	others	19	22	12	23	39	23	29	25	28	25	12	22	13	14	18	13	11	15	17	23	22	11	24	27	487	others
04	transportation service	19	23	27	11	26	22	13	13	10	17	18	13	23	12	15	12	20	12	14	11	8	13	26	17	395	transportation service
07	livestock/fishery	5	3	6	8	2	5	7	4	3	5	4	2	5	1	3	4	6	3	6	9	1	7	5	11	115	livestock/fishery
13	health and hygiene service	6	4	4	2	3	5	2	1	2	5	6	1	1	2	1	2	3	4	4	1	4	3	3	6	75	health and hygiene service
14	hotel/restaurant/amusement service	25	9	7	10	10	4	5	6	4	7	1	9	5	8	1	5	4	2	4	3	9	4	4	5	151	hotel/restaurant/amusement service
06	agriculture	20	8	5	8	4	4	3	5	5	4	4	5	5	2	2	5	4	2	1	8	3	5	5	4	121	agriculture
05	cargo handling service	10	5	3	2	3	4	4	7	8	2	4	3		2	3		1	1	4	1	2	2	1	4	76	cargo handling service
12	education/research service	5	3	7	3	3	4	1	4	9	4	5	4	1	6	1	1	3		1			1	2	2	70	education/research service
02	mining	2	2	2	5	2	5		3	2	3	1		2	2	5	2	1	1	1	1		1		1	44	mining
09	financial business/advertisement		1	1	2	2	1	1		2	1			1			1	1					1	1		16	financial business/advertisement
16	public office	3			1	1	2	1		1									1				1	1		12	public office
10	movie/play service	1	1																				1			3	movie/play service
11	telecommunication service																1									1	telecommunication service
	total	5,926	5,666	5,115	4,675	4,619	4,545	4,292	4,260	4,142	3,790	2,713	2,897	3,080	3,016	2,759	2,819	2,641	2,532	2,503	2,527	2,446	2,242	2,346	2,263	83,814	total

Transition of causal agents (Middle) of fatal and non-fatal accidents as code no. 15 metal manufacturing machine 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	2,438	2,515	2,208	1,897	1,984	1,962	1,757	1,788	1,749	1,534	1,109	1,171	1,213	1,229	1,163	1,185	1,108	1,038	1,000	1,028	1,012	884	898	881	34,751	metal products
0113	machine products	894	817	748	705	663	653	631	651	579	593	376	431	492	424	399	394	384	363	333	362	346	286	335	296	12,155	machine products
0115	transport equipment products	550	547	543	477	500	513	524	455	505	418	255	261	312	310	288	276	229	237	270	229	225	204	220	185	8,533	transport equipment products
0302	construction work	369	376	378	382	344	318	316	317	280	285	248	250	258	254	219	239	209	199	213	200	192	179	198	182	6,405	construction work
0114	electrical equipment products	239	271	217	193	177	172	166	152	154	141	92	106	118	108	94	83	101	84	85	77	95	92	77	94	3,188	electrical equipment products
0110	steel making	150	145	150	140	109	132	121	129	116	138	77	95	91	100	80	87	76	73	83	72	76	55	67	80	2,442	steel making
0303	other construction works	105	91	90	87	72	83	65	76	75	82	69	58	67	62	54	61	56	77	57	76	62	58	75	72	1,730	other construction works
0108	chemical products	161	142	120	99	102	87	101	78	75	64	45	47	67	61	57	59	56	56	54	61	55	60	50	69	1,826	chemical products
0117	other manufacturing	139	153	107	120	105	110	113	115	99	95	84	76	68	90	73	72	77	60	64	61	73	78	70	67	2,169	other manufacturing
0301	civil engineering work	112	112	91	102	94	66	82	67	79	65	54	67	56	68	54	72	67	63	69	62	45	61	57	46	1,711	civil engineering work
0111	nonferrous metal making	112	87	89	99	77	81	73	87	92	78	61	57	65	58	50	62	55	61	52	52	48	44	52	42	1,634	nonferrous metal making
0801	wholesale	46	27	35	27	43	36	24	47	28	28	36	31	23	44	26	23	23	32	38	35	31	39	39	32	793	wholesale
1501	commercial cleaning and livestock process	25	27	27	26	28	27	32	34	37	30	20	35	40	23	28	31	28	33	23	27	33	28	28	32	702	commercial cleaning and livestock process
1702	others	14	21	9	15	30	14	22	21	23	20	11	18	12	11	16	11	11	10	13	20	20	10	21	26	399	others
0109	sand and stone products	78	53	42	69	54	59	55	36	40	40	33	27	30	34	35	20	26	21	36	21	18	24	28	23	902	sand and stone products

011701	auto mobile servicing	39	44	33	36	32	33	33	27	32	30	20	16	24	26	16	18	20	19	21	19	20	27	25	15	625	auto mobile servicing
011501	ship building	43	41	44	45	34	38	34	23	36	35	26	28	33	23	20	22	20	22	24	19	17	19	20	13	679	ship building
011401	heavy electrical equipment	15	11	15	12	12	18	12	14	13	14	6	7	9	6	10	14	21	14	10	11	12	12	11	12	291	heavy electrical equipment
040301	general truck transportation service	11	15	20	8	22	13	9	9	8	14	11	10	14	10	12	6	15	10	10	10	5	8	18	12	280	general truck transportation service
030302	machinery/apparatus setting work	28	23	16	24	18	24	25	17	27	30	20	10	20	15	21	18	15	24	16	22	15	16	13	11	468	machinery/apparatus setting work
011702	machine repair	27	24	16	15	17	15	24	23	14	23	25	13	11	18	13	19	14	6	12	8	11	10	12	11	381	machine repair
010901	cement products	30	18	13	19	20	17	14	14	14	11	10	6	15	16	19	7	8	11	14	6	11	11	13	10	327	cement products
011402	electrical appliance	35	31	34	38	29	31	29	23	25	24	9	11	22	21	13	10	16	10	13	9	20	8	3	9	473	electrical appliance
070101	livestock		1	5	6	2	2	7	4	2	5	3	2	5	1	3	2	3	2	5	7		7	5	9	88	livestock
030106	road construction work	21	20	15	16	14	7	12	12	10	9	9	4	8	12	6	8	14	5	7	13	7	9	12	8	258	road construction work
080409	other commerce	7	7	6	12	9	8	7	8	14	8	10	2	9	10	4	5	4	7	5	11	7	9	9	8	186	other commerce
011204	metal plating products	32	13	18	16	12	21	18	11	14	20	20	18	17	12	11	17	9	17	17	10	13	9	8	7	360	metal plating products
010909	other sand and stone products	26	20	16	31	21	20	21	9	13	13	13	13	9	10	10	8	9	6	14	10	5	9	9	7	322	other sand and stone products
010701	printing service	32	21	19	10	18	13	10	15	20	11	11	15	11	6	5	10	11	7	6	8	4	10	10	7	290	printing service
010109	other foods	58	18	16	13	1	14	11	15	10	12	6	10	9	3	8	6	2	3	4	7	4	8	1	7	246	other foods
011303	optical instruments	20	19	7	19	10	18	21	15	12	7	5	4	10	6	5	7	4	6	4	7	8	5	4	7	230	optical instruments
150109	other cleaning and livestock process service	3	8	4	2	3	5	1	4	7	4	1	5	9	2	5	1	1	3	1	5	3	2	2	7	88	other cleaning and livestock process service
011101	nonferrous metals/rolling products	20	17	16	18	17	10	5	20	14	12	8	8	14	9	11	12	9	15	6	7	12	15	8	6	289	nonferrous metals/rolling products
010409	other lumber and wood products	18	13	13	4	16	10	13	9	14	12	6	13	8	11	6	6	8	6	3	5	10	4	3	6	217	other lumber and wood products
030110	water supply/sewage construction work	25	24	18	24	25	14	19	10	15	10	10	15	11	13	17	13	9	13	6	7	5	5	11	5	324	water supply/sewage construction work
010602	paper processing products	28	22	18	13	16	8	10	17	9	9	10	13	12	6	8	9	7	12	6	4	8	8	4	5	262	paper processing products
010899	other chemical products	18	18	10	9	10	6	10	4	6	6	7	1	6	3	2	2	5	4	8	6	5	3	5	5	159	other chemical products
150103	other waste disposal service	8	5	7	8	6	5	9	11	6	4	4	16	6	4	5	10	5	5	6	3	5	5	2	5	150	other waste disposal service
010509	other furniture	5	6	3	3	2	5	7	7	6	2	2	1	6	8	3	4	6	3	2	2	2	4	4	5	98	other furniture
030301	electricity/telecommunication work	17	12	18	15	11	10	6	11	8	10	11	6	8	10	3	10	2	4	6	9	4	6	4	4	205	electricity/telecommunication work
010903	pottery products	5	3	5	8	2	7	6	3	6	4	4		2	1	1	4	3		3	2		1	4	4	78	pottery products
060101	agriculture	9	4	2	5	1	4	2	3	1	2	3	2	4	1	2	4	4	2	1	6	3	4	4	4	77	agriculture
011302	measuring instruments	12	21	17	12	18	14	8	9	14	5	8	8	11	8	8	8	7	8	5	8	9		1	3	222	measuring instruments
030109	land consolidation civil engineering work	6	8	11	11	6	6	9	5	7	7	7	5	3	6	4	5	7	4	2	7	2	6	6	3	143	land consolidation civil engineering work
080202	auto mobile retail	3	2	5	4	1	3	3	5	2	4	4	3	5	3	3	7	2	1	2	3	3	8	6	3	85	auto mobile retail
010309	other fiber products	14	3	2	7	6	4	1	4	5	2	1	4	5	3	2		3	3	2	2	2	1	3	3	82	other fiber products
150101	building maintenance service	6	5	4	5	4	4	4	3	2	2	5	1	5	1	6	2	2	5		2	3	1	3	3	78	building maintenance service
030105	bridge construction work	3	2	4	1	7	6	2	2	4	4	2	3	4	2	5	3	3	2	3	3	1	2	1	3	72	bridge construction work
010401	lumbering	13	3	5	2	1	2	3	5	2	2	1	1	6	2	2	1	1	2	1	2	4	1		3	65	lumbering
010609	other pulp/paper processing products	9	6	7	4	5	2	2	1	1	1		2	3	4	1	3		1	2	3	2		1	3	63	other pulp/paper processing products
010709	other printing and bookbinding	4	2	3	2	6	1	5	4	5	1	1	2	3	1	1	3	4	2	1	3		2		3	59	other printing and bookbinding
130201	social welfare facility	4	1	1	2	2	3		1	2	3	2	1		1	1	2	2	3	3	1	4	2	3	3	47	social welfare facility

010702	bookbinding	7	5	2	3	5	5	8	7	5	5	6	6	3		2	4	4	3	3	1	1	3	2	2	92	bookbinding
010501	wood furniture	9	5	3	4	7	5	5	8	7	3	3	1	2	3	5	5	2	1		3	1	1	2	2	87	wood furniture
010902	glass products	12	5	2	7	5	8	6	4	4	6	4	3	2	2	2		3	2	1	1	2	2	1	2	86	glass products
010801	non organic or organic chemical products	7	7	7	5	4	5	4	3	2	5	2	1	5	5	1	3	3	1	3	3	3	2	2	2	85	non organic or organic chemical products
120109	other education/research service	5	3	7	2	3	3	1	4	9	4	4	3	1	6	1	1	3		1				2	2	65	other education/research service
050101	land cargo handling service	9	3	1	2	2	4	3	5	5	2	2	3		2	2		1	1	2	1	2	2	1	2	57	land cargo handling service
011703	cleaning	8	4		4		3	4	5	6	1	1			1	1	2	1	1			1			2	45	cleaning
080101	all kinds of wholesale	6	2	4	3	3	3		4	1	2	1	1		1	1		2	1		2	3	1		2	43	all kinds of wholesale
140309	other amusement service	5	3		2	1		1			3	1	2	2	3		1	1	1	3	1	1	1	2	2	36	other amusement service
140201	general restaurant	9	2	4	1	2		2		1			2		2		1		1						2	29	general restaurant
080401	warehousing	3			1		1			1	1	1	1				2		1	1	2	1	2	1	2	21	warehousing
010204	dyeing	4		4	1	1	1		2						1		1						1	1	2	19	dyeing
010502	metal furniture	15	9	5	9	11	11	12	6	3	8	3	6	11	5	4	9	6	6	6	2	4	5	1	1	158	metal furniture
011503	railway vehicle products	10	7	11	7	9	8	4	4	6	8	8	5	4	2	5	2	5	9	7	5	2	3	5	1	137	railway vehicle products
170101	dispatch service	5	1	3	8	9	9	7	4	5	5	1	4	1	3	2	2		5	4	3	2	1	3	1	88	dispatch service
010104	bread/cake products	22	16	8	2	5	1	4	4	4	3	1	2		2	1	1		1		2			2	1	82	bread/cake products
080201	all kinds of retail	23	7	3	8	4	7	2	2	4	3	1	1	2		1	1	1		1	1			2	1	75	all kinds of retail
080204	fuel retail	3	6	5	5	2	5	3	3	2	2	4	2	2		3	2	3	3	4	2	3		2	1	67	fuel retail
140301	golf course	4	1	1	1	4	3		2	2	4		4	2	2	1	2	3			2	5		1	1	45	golf course
030107	river civil engineering work	5	4	2	3	2		1	2	1	3		2	1			3	1		1	1		2	1	1	36	river civil engineering work
010601	pulp/paper	7	2	4	1	1	1	2	2	3			2	2	1					1		2		3	1	35	pulp/paper
010402	plywood	3		1	5	3	2	2		1		1			1	1		4	1		1	3	2		1	32	plywood
030111	port/seaside construction work	2	1	3	3	3				1	1	2		1	3		2	1	1	2	2	1	1		1	31	port/seaside construction work
040101	railroad service	4	2	4		2	2	1	1	1	1	2	1	3	2			1		2		1			1	31	railroad service
010809	chemical fertilizer products	1		1				1	1	2	4	3		1		1	1		2			1		1	1	21	chemical fertilizer products
040309	other land cargo transportation service		2		1	1	2	1		1		3	1	2		1	1	1	1			1		1	1	21	other land cargo transportation service
080102	furniture/fitings wholesale	2	1	2		2		1		2		1	2					2	1			1		1	1	19	furniture/fitings wholesale
040202	bus service	1	2		1		2	1	1		1	1	1	1			2	2						1	1	18	bus service
070209	other fishery	1	2		1		1					1					2	2	1	1	2	1			1	16	other fishery
010804	petroleum/coal products	4	1	2	1		1	1						1					1	1		1			1	15	petroleum/coal products
020202	gravel digging				2		3		1		1	1		1				1			1				1	12	gravel digging
050202	port cargo handling service		1	1		1		1	2	1		1				1					2				1	12	port cargo handling service
070201	fishery	4		1	1		2			1							1								1	11	fishery
040201	taxi service	1		2				1			1		1				2			1					1	10	taxi service
040102	water transportation service			1							1									1	1	1	1	1	1	9	water transportation service
050201	general harbor transportation service	1	1	1							2		1												1	7	general harbor transportation service
130109	other medical treatment service	1		1							1	1								1			1		1	7	other medical treatment service
130301	bathhouse						1					2													1	4	bathhouse
130102	general clinic																								1	1	general clinic
010102	fishery products	10	10	6	2	1	4	6	3	2	1	1	3	7	4	3	2	2	1	1	5	2		4		80	fishery products
010209	other textile products	7	5	5	4	6	5	2	2	3	1	2	1	2	3	4	2	4	1	1	3		5	1		69	other textile products

010905	other ceramic products	4	4	3	4	5	6	6	4	1	3	1	4	1	3	3	1	2	2	2	1					60	other ceramic products
010101	meat/dairy products	18	4	5	5	2	1	4	2	2	1	2	1		1		2				4	1	3			58	meat/dairy products
010503	fittings	7	4	3	7	2	2	4	2	4	2	2	1	1	1	2	1		1		1	3		3		53	fittings
010807	leather products	11	3	4	2	3	3	2	2		1	3		2	3	2	2	3	1		3	2				52	leather products
011304	watch products	8	5	1	3	5	1	2		1	1	2	1		2	1		1	1	2	2	1				40	watch products
010301	over/under wear	7	5	3	2	1	3	2	1	1			1			1			2	1	1		2	1		34	over/under wear
010103	agricultural food products	9	4	1		1	4		1	4		1	1		2	1		1			1		1			32	agricultural food products
030104	railway construction work	1	3	1	1	2	1	2	1	2	1	1	2				5	1		2	2	1	2	1		32	railway construction work
010904	fire resisting products	1	3	3		1	1	2	2	2	3	1	1	1	2			1		2	1		1	1		29	fire resisting products
060209	other forestry	5	4	3	2	2			1	3	1	1	2	1	1						1			1		28	other forestry
140101	hotel	4	1	2	5	3	1	1					1		1					1		3	3	1		27	hotel
010803	pharmaceuticals	4		2	2		2		1		1	2	1				1	1	1			1	1	1		21	pharmaceuticals
020201	quarrying	1	2	2	2	1	1		1	2	2					2	3			1	1					21	quarrying
040302	specific truck transportation service	2	2			1	2		1					2		2	1	1					3	4		21	specific truck transportation service
080203	furniture/fittings retail	1	1	5	1		1		1		2		1	1		1	2			1	1					19	furniture/fittings retail
030108	sand collapse prevention civil engineering work		2		1	3				2	1	1	1	1					1	1		3		1		18	sand collapse prevention civil engineering work
060201	lumbering	6			1	1		1	1	1	1	1				1				1		1				16	lumbering
010203	weaving	2	3	1	2	1	1	1	1				1				1				1					15	weaving
090209	other advertisement and mediator		1		2	2	1	1		1	1			1			1	1					1	1		14	other advertisement and mediator
010202	cotton-spinning	5	3		1		1	2											1							13	cotton-spinning
130101	hospital	1	2	2		1		2			1	1		1	1				1							13	hospital
010106	soft drinks	1	1		1			1					2		1			1	1	1	1	1				12	soft drinks
010808	painting products		5	1					3							1				1		1				12	painting products
160101	public office	3			1	1	2	1		1									1				1	1		12	public office
010802	chemical fiber	1	3	1			1		1	1						1	1									10	chemical fiber
170201	security service					1	1	1		1	1		2		1	1							1			10	security service
010105	alcoholic drinks	1	1	1			1	2	1												2					9	alcoholic drinks
030102	tunnel construction work	1	1									2		2							1		1	1		9	tunnel construction work
020309	other mining	1					1		1					1		2	1						1			8	other mining
140302	park and amusement park	2	1		1				2				1			1										8	park and amusement park
030101	hydroelectric plant construction work				1	1		1		2		1							1							7	hydroelectric plant construction work
011603	city water service							1		1					2			1			1					6	city water service
140209	other restaurants	1	1					1	2	1																6	other restaurants
011609	other electric/gas/water service			2					1				1						1							5	other electric/gas/water service
120101	auto mobile practical training				1		1					1	1										1			5	auto mobile practical training
011602	city gas service		1		1						1		1													4	city gas service
011704	tobacco products	2				1																				3	tobacco products
020209	other quarrying				1	1												1								3	other quarrying
030103	subway construction work								1											1		1				3	subway construction work
040409	other transportation service						1															1	1			3	other transportation service
080205	newspaper retail	1		1			1																			3	newspaper retail

