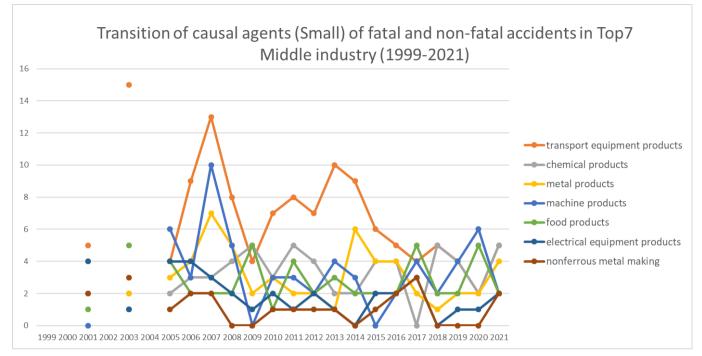
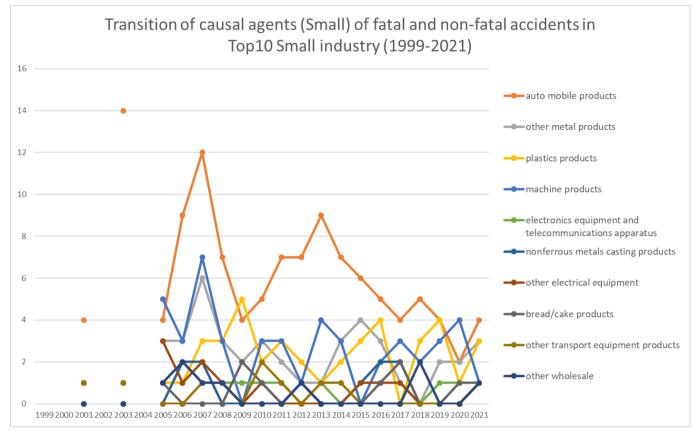


Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 167 industrial robot in Large industry (1999-2021)



Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 167 industrial robot in Middle Industry (1999-2021)



Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 167 industrial robot in Small Industry (1999-2021)

Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 167 industrial robot 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			22		40		32	33	48	30	24	23	26	27	24	25	21	24	25	20	20	20	25	509	manufacturing
08	commerce			2		3		1	2	1	1	1			1			1			3		2	1	19	commerce
07	livestock/fishery							1			1	1				2	1	1						1	8	livestock/fishery
04	transportation service													1				1						1	3	transportation service
14	hotel/restaurant/amusement															1								1	2	hotel/restaurant/amusement
1	service																							1	2	service
03	construction					2			1		1	2		1		1	1	1			1	1	1		13	construction
17	others					1				2			1	1	1		2								8	others

06	agriculture		1		1					1		2						1	1			7	agriculture
05	cargo handling service		1	1	1						1						1			1		6	cargo handling service
15	commercial cleaning and livestock process							1	1				1		1							4	commercial cleaning and livestock process
13	health and hygiene service												1					1				2	health and hygiene service
02	mining									1												1	mining
09	financial																						financial
	business/advertisement																						business/advertisement
10	movie/play service																						movie/play service
11	telecommunication service																						telecommunication service
12	education/research service																						education/research service
16	public office																						public office
	total		26	47	36	36	51	34	29	26	30	31	30	29	26	24	26	26	22	24	29	582	total

Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 167 industrial robot 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
0115	transport equipment products			5		15		4	9	13	8	4	7	8	7	10	9	6	5	4	5	4	2	5	130	transport equipment products
0108	chemical products			2		2		2	3	3	4	5	3	5	4	2	2	4	4		5	4	2	5	61	chemical products
0112	metal products			4		2		3	4	7	5	2	3	2	2	1	6	4	4	2	1	2	2	4	60	metal products
0113	machine products					1		6	3	10	5		3	3	2	4	3		2	4	2	4	6	2	60	machine products
0101	food products			1		5		4	2	2	2	5	1	4	2	3	2	2	2	5	2	2	5	2	53	food products
0114	electrical equipment products			4		1		4	4	3	2	1	2	1	2	1		2	2	3		1	1	2	36	electrical equipment products
0111	nonferrous metal making			2		3		1	2	2			1	1	1	1		1	2	3				2	22	nonferrous metal making

0109	sand and stone products	1	5	3	2	6	1	1	1		2	2	2	2	2		1	1		1	33	sand and stone products
0801	wholesale			1	2	1	1				1						2			1	9	wholesale
0701	livestock			1			1	1				2	1	1						1	8	livestock
0104	wood products				1			1			1									1	4	wood products
0403	road cargo transportation service									1				1						1	3	road cargo transportation service
1402	restaurant											1								1	2	restaurant
0102	textile products																			1	1	textile products
0117	other manufacturing	1	5	4	1		2	1			2					2	2	1	1		22	other manufacturing
0106	pulp/paper processing products			1	2	1	1	3	2		1				1		1		1		14	pulp/paper processing products
0303	other construction works		1		1		1	1				1	1				1	1	1		9	other construction works
1702	others		1			2			1	1	1		2								8	others
0501	land cargo handling service	1	1	1						1						1			1		6	land cargo handling service
0601	agriculture	1		1					1		2							1			6	agriculture
0802	retail	2	2											1					1		6	retail
0107	printing/bookbinding					1				2	1						1				5	printing/bookbinding
0105	furniture							1								2		1			4	furniture
0804	other commerce		1					1									1		1		4	other commerce
1501	commercial cleaning and livestock process						1	1				1		1							4	commercial cleaning and livestock process
0110	steel making	1	1										1								3	steel making
0301	civil engineering work		1							1											2	civil engineering work
0302	construction work							1						1							2	construction work

1301	medical treatment service									1			1		2	medical treatment service
0103	fiber products		1												1	fiber products
0202	quarrying							1							1	quarrying
0602	forestry												1		1	forestry
0116	electric/gas/water service															electric/gas/water service
0201	coal mining															coal mining
0203	other mining															other mining
0401	railroad/water transportation/airline service															railroad/water transportation/airline service
0402	road passenger transport service															road passenger transport service
0404	other transportation service															other transportation service
0502	harbor transportation service															harbor transportation service
0702	fishery															fishery
0803	haircut/beauty salon															haircut/beauty salon
0901	financial business															financial business
0902	advertisement and mediator															advertisement and mediator
1001	movie/play service															movie/play service
1101	telecommunication service															telecommunication service
1201	education/research service															education/research

																							service
1302	social welfare facility																						social welfare facility
1303	other health and hygiene service																						other health and
1505	other health and hygiene service																						hygiene service
1401	hotel																						hotel
1402	other amusement service																						other amusement
1403																							service
1601	public office																						public office
1701	dispatch service																						dispatch service
	total		26	47	36	36	51	34	29	26	30	31	30	29	26	24	26	26	22	24	29	582	total

Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 167 industrial robot 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
011502	auto mobile products			4		14		4	9	12	7	4	5	7	7	9	7	6	5	4	5	4	2	4	119	auto mobile products
011209	other metal products			1		1		3	3	6	3	2	3	2	1	1	3	4	3	1		2	2	3	44	other metal products
010805	plastics products			1		1		1	1	3	3	5	2	3	2	1	2	3	4		3	4	1	3	43	plastics products
011301	machine products					1		5	3	7	3		3	3	1	4	3		2	3	2	3	4	1	48	machine products
011403	electronics equipment and telecommunications apparatus			1				1	2	1	1	1	1	1		1		1	1	2		1	1	1	17	electronics equipment and telecommunications apparatus
011102	nonferrous metals casting products			1		1			2	2					1			1	2	2				1	13	nonferrous metals casting products
011409	other electrical equipment			1				3	1	2	1		1					1	1	1				1	13	other electrical equipment
010104	bread/cake products							1				2	1		1				1	2			1	1	10	bread/cake products
011509	other transport equipment products			1		1				1	1		2	1		1	1							1	10	other transport equipment products

080109	other wholesale				1	2	1	1				1						2			1	9	other wholesale
11109	other nonferrous metal products		1	2	1					1	1		1								1	8	other nonferrous metal products
011204	metal plating products		1				1					1		3		1					1	8	metal plating products
070101	livestock				1			1	1				2	1	1						1	8	livestock
011305	other precision machine products						1	1				1							1	2	1	7	other precision machine products
010903	pottery products			1			2		1												1	5	pottery products
010105	alcoholic drinks			1				1				1									1	4	alcoholic drinks
010899	other chemical products										1									1	1	3	other chemical products
040301	general truck transportation service										1				1						1	3	general truck transportation service
010409	other lumber and wood products											1									1	2	other lumber and wood products
140201	general restaurant												1								1	2	general restaurant
010202	cotton-spinning																				1	1	cotton-spinning
010802	chemical fiber																				1	1	chemical fiber
010109	other foods			1	2	1	2		3		4		2		1	1		2	2	1		22	other foods
011709	other manufacturing		1	4	3	1		2	1			2					2	2	1			19	other manufacturing
010909	other sand and stone products			3		2		1					1	1	2			1				11	other sand and stone products
010602	paper processing products				1	1	1	1	2	2		1								1		10	paper processing products
170209	others			1			2			1	1	1		2								8	others
010905	other ceramic products			1	1		1			1		2				1						7	other ceramic products
030302	machinery/apparatus setting work			1		1			1				1	1				1	1			7	machinery/apparatus setting work
010101	meat/dairy products			2									1	1			1			1		6	meat/dairy products

010106	soft drinks				1	1		1							1		1			1	6	soft drinks
011402	electrical appliance		2	1		1						2									6	electrical appliance
050101	land cargo handling service		1	1	1						1						1			1	6	land cargo handling service
060101	agriculture		1		1					1		2							1		6	agriculture
010701	printing service						1				2	1						1			5	printing service
10901	cement products				1		3									1					5	cement products
10103	agricultural food products		1											1			1			1	4	agricultural food products
010609	other pulp/paper processing products					1			1							1		1			4	other pulp/paper processing products
10803	pharmaceuticals			1								1	1					1			4	pharmaceuticals
10806	rubber products					1				1	1							1			4	rubber products
11203	metal press products		1					2										1			4	metal press products
10809	chemical fertilizer products		1		1							1									3	chemical fertilizer products
10902	glass products		1										1	1							3	glass products
011202	screw products		1	1													1				3	screw products
011303	optical instruments				1		1	1													3	optical instruments
011703	cleaning			1	1															1	3	cleaning
080201	all kinds of retail		2	1																	3	all kinds of retail
80209	other retails			1											1					1	3	other retails
80401	warehousing			1														1		1	3	warehousing
010401	lumbering					1			1												2	lumbering
10501	wood furniture								1										1		2	wood furniture
10801	non organic or organic chemical products							1							1						2	non organic or organic chemical products
010904	fire resisting products				1														1		2	fire resisting products
11002	casting products		1											1							2	casting products

011302	measuring instruments					1								1			2	measuring instruments
030199	other civil engineering work		1							1							2	other civil engineering work
030209	other building construction work							1					1				2	other building construction work
130101	hospital										1				1		2	hospital
010102	fishery products		1														1	fishery products
010301	over/under wear	1															1	over/under wear
010502	metal furniture													1			1	metal furniture
010503	fittings													1			1	fittings
010804	petroleum/coal products				1												1	petroleum/coal products
011001	steel/iron/rolling products		1														1	steel/iron/rolling products
011101	nonferrous metals/rolling products													1			1	nonferrous metals/rolling products
011201	western tableware/cutting tool products				1												1	western tableware/cutting tool products
011503	railway vehicle products											1					1	railway vehicle products
020209	other quarrying								1								1	other quarrying
030301	electricity/telecommunication work						1										1	electricity/telecommunication work
030309	other construction works															1	1	other construction works
060209	other forestry														1		1	other forestry
080409	other commerce							1									1	other commerce
150101	building maintenance service						1										1	building maintenance service
150102	industrial waste management service										1						1	industrial waste management service
150103	other waste disposal service												1				1	other waste disposal service
	other cleaning and livestock																	other cleaning and livestock

150109	process service					1					1	process service
010201	silk-reeling											silk-reeling
010203	weaving											weaving
010204	dyeing											dyeing
010209	other textile products											other textile products
010309	other fiber products											other fiber products
010402	olywood											plywood
010509	other furniture											other furniture
010601	oulp/paper											pulp/paper
010702	bookbinding											bookbinding
010709	other printing and											other printing and
	bookbinding											bookbinding
010807	eather products											leather products
010808	painting products											painting products
011009	other steel products											other steel products
011304	watch products											watch products
011401	neavy electrical equipment											heavy electrical equipment
011501	ship building											ship building
011601	electric utility service											electric utility service
011602	city gas service											city gas service
011603	city water service											city water service
011609	other electric/gas/water service											other electric/gas/water service
011701	auto mobile servicing											auto mobile servicing
011702	machine repair											machine repair
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
020301	metal mining											metal mining
020302	petroleum mining											petroleum mining
020309	other mining											other mining
030101	hydroelectric plant construction work											hydroelectric plant construction work
	tunnel construction work											tunnel construction work
	subway construction work											subway construction work
	railway construction work											railway construction work
	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 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
030111	port/seaside construction work											port/seaside construction work
	steel frame/reinforced											steel frame/reinforced
	concrete house construction work											concrete house construction work
030202	wooden house construction											wooden house construction

b											work
030203	ouilding facility construction work										building facility construction work
040101 r	railroad service										railroad service
040102 v	water transportation service										water transportation service
040103 a	airline service										airline service
040201 t	axi service										taxi service
040202 k	ous service										bus service
040209	other passenger transport service										other passenger transport service
040302	specific truck transportation										specific truck transportation service
040303	cargo/ light automobile										cargo/ light automobile transportation service
040309	other land cargo cransportation service										other land cargo transportation service
040409 c	other transportation service										other transportation service
050201	general harbor transportation										general harbor transportation service
050202 r	port cargo handling service										port cargo handling service
050209	other harbor transportation										other harbor transportation service
060201 l	umbering										 lumbering
070201 fi	ishery										 fishery
070209 c	other fishery										other fishery
080101 a	all kinds of wholesale										all kinds of wholesale
080102 f	urniture/fittings wholesale										furniture/fittings wholesale

080202	auto mobile retail											auto mobile retail
080203	furniture/fittings retail											furniture/fittings retail
080204	fuel retail											fuel retail
080205	newspaper retail											newspaper retail
080301	haircut											haircut
080302	beauty salon											beauty salon
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
120109	other education/research service											other education/research service
130102	general clinic											general clinic
130109	other medical treatment service											other medical treatment service
130201	social welfare facility											social welfare facility

130301	bathhouse																						bathhouse
130309	other health and hygiene																						other health and hygiene
	service																						service
140101	hotel																						hotel
140209	other restaurants																						other restaurants
140301	golf course																						golf course
140302	park and amusement park																						park and amusement park
140309	other amusement service																						other amusement service
150104	cremation service																						cremation service
150105	livestock process service																						livestock process service
160101	public office																						public office
170101	dispatch service																						dispatch service
170201	security service																						security service
170202	information processing																						information processing
	service																						service
	total		26	47	36	36	51	34	29	26	30	31	30	29	26	24	26	26	22	24	29	582	total

Data source : <u>https://anzeninfo.mhlw.go.jp/user/anzen/tok/anst00.htm</u> (MHLW, Japan)

https://www.jisha.or.jp/english/statistics/202212_03.html