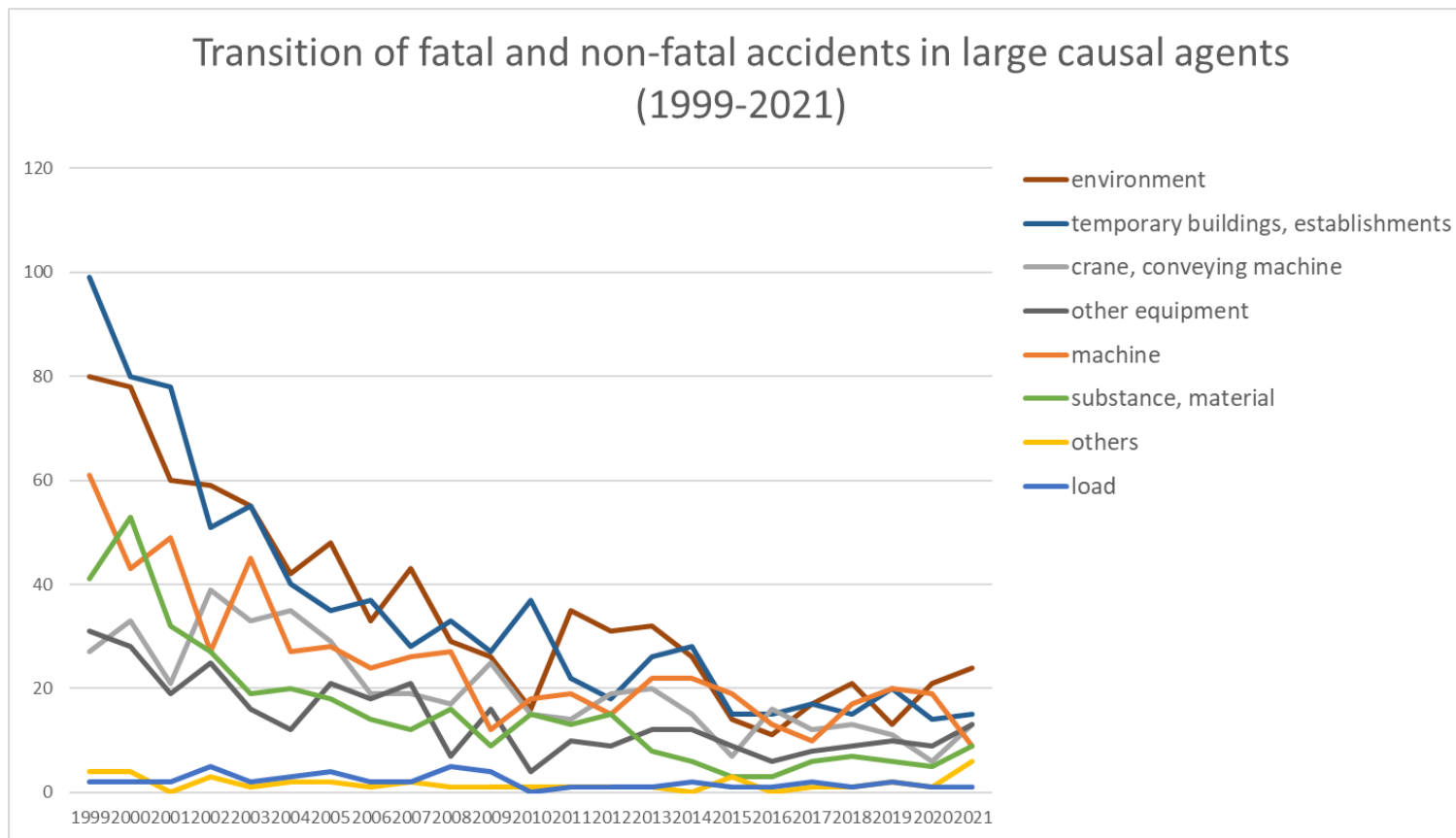
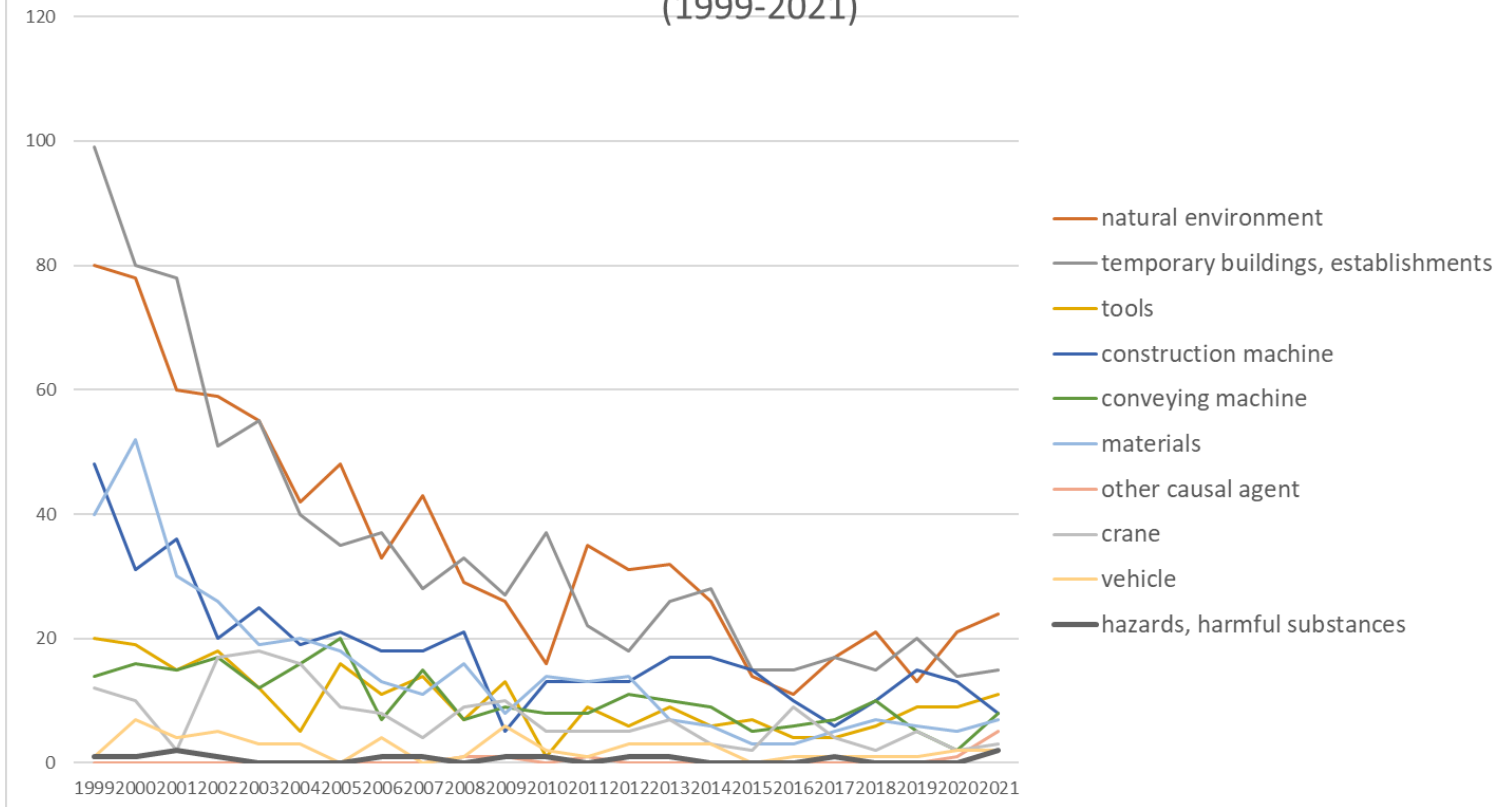


Transition of fatal and non-fatal accidents in each element like as causal agents, type of accidents, etc. in code no. 030108 sand collapse prevention civil engineering work (1999-2021)



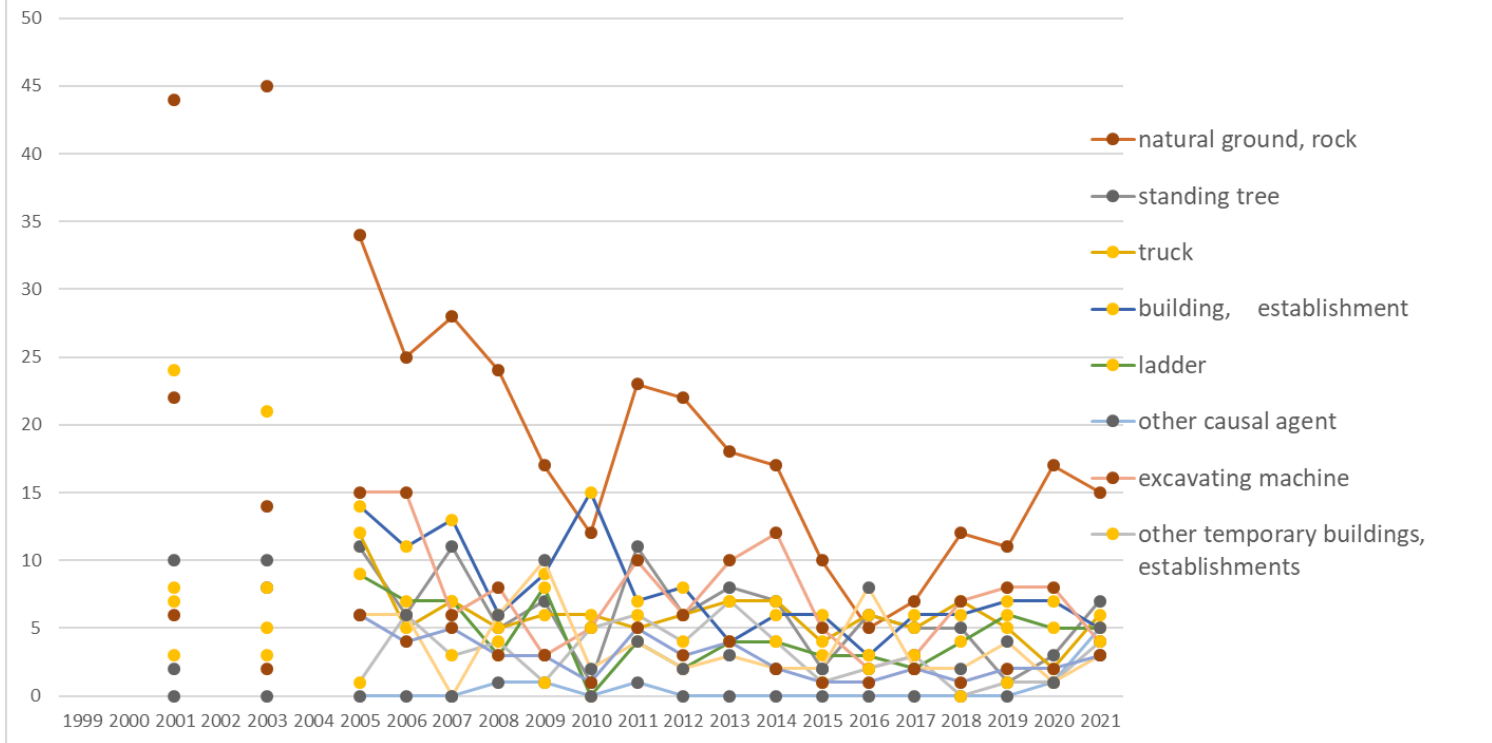
Transition of fatal and non-fatal accidents in large causal agents in code no. 030108 sand collapse prevention civil engineering work (1999-2021)

Transition of fatal and non-fatal accidents in top 10 middle causal agents (1999-2021)



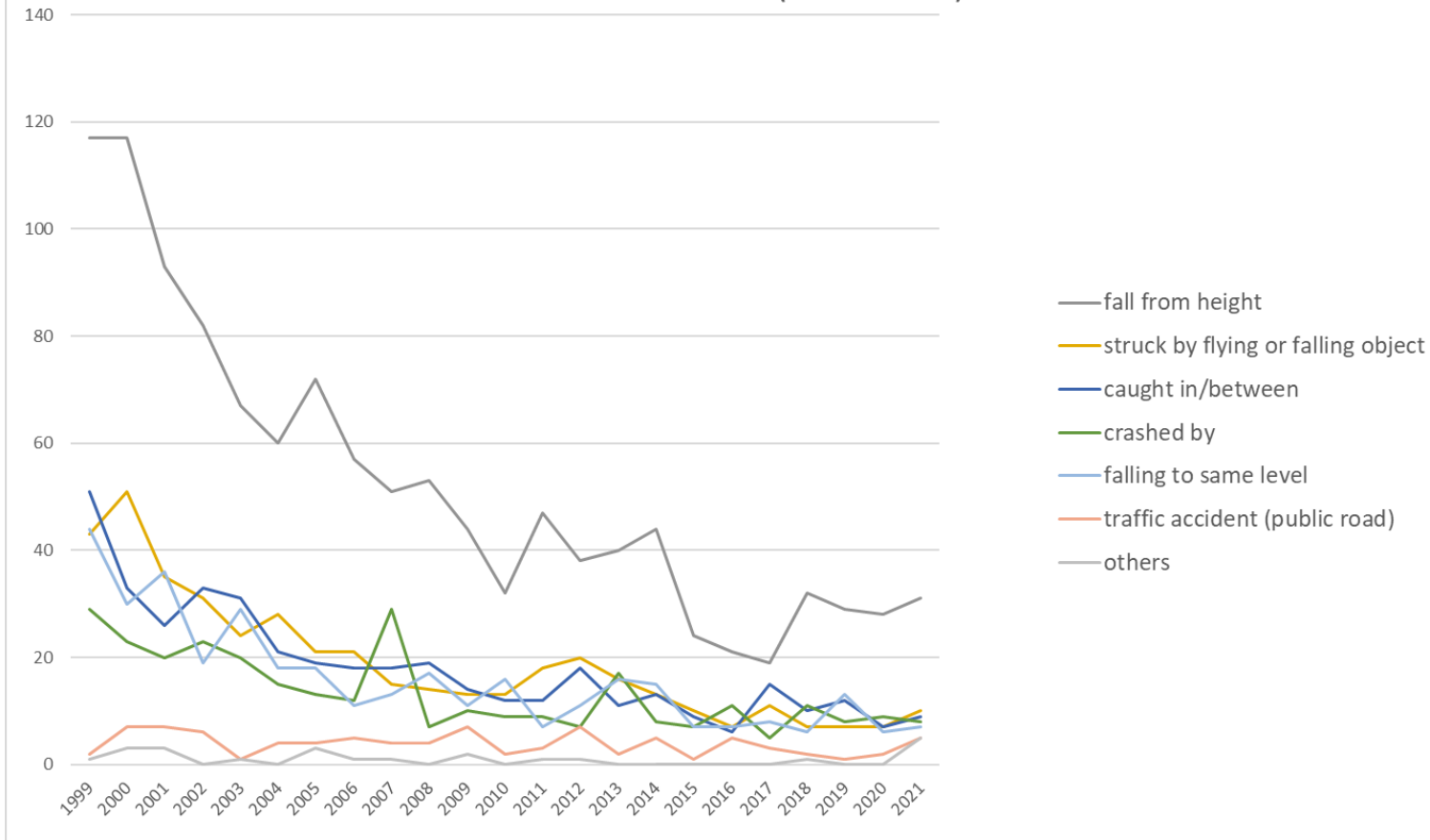
Transition of fatal and non-fatal accidents in middle causal agents in code no. 030108 sand collapse prevention civil engineering work (1999-2021)

Transition of fatal and non-fatal accidents in top 10 small causal agents (1999-2021)



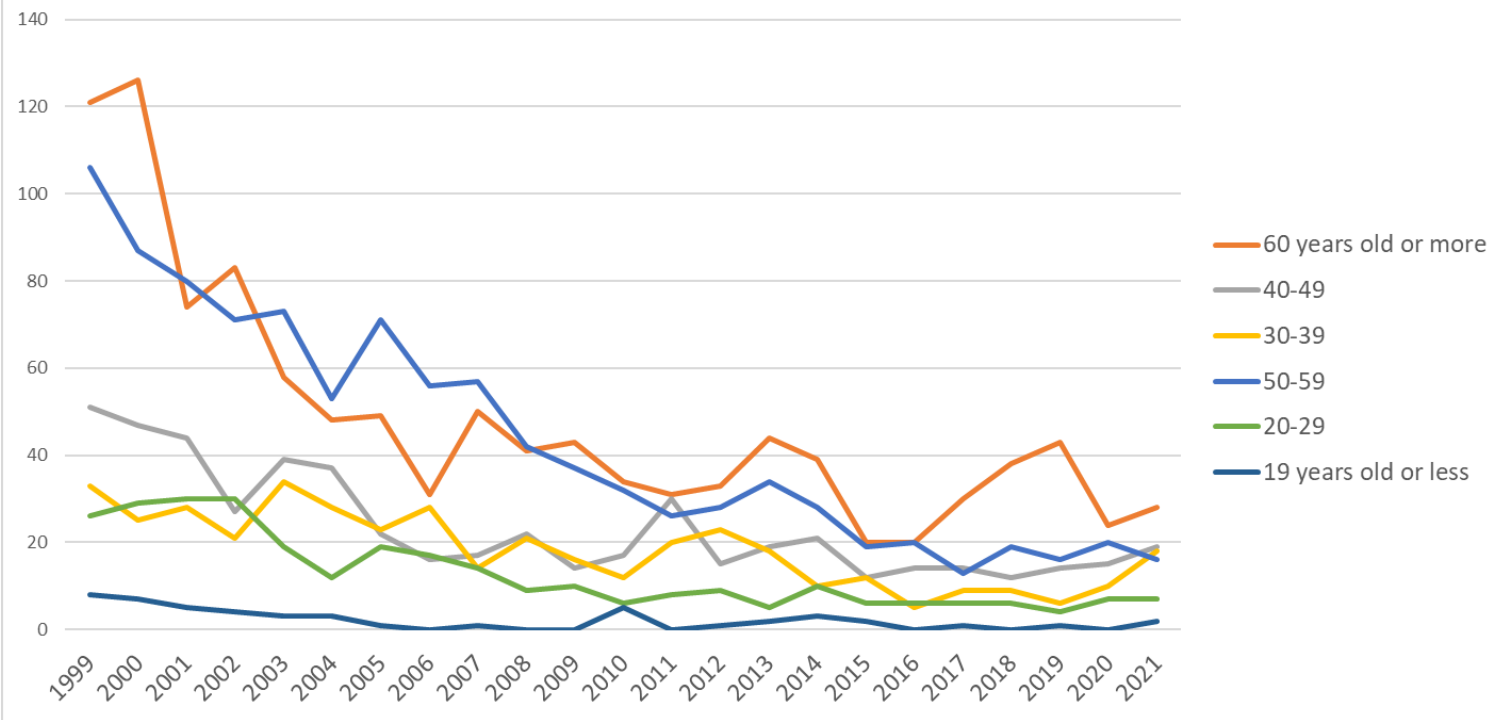
Transition of fatal and non-fatal accidents in small causal agents in code no. 030108 sand collapse prevention civil engineering work (1999-2021)

Transition of fatal and non-fatal accidents in top 7 type of accidents
(1999-2021)



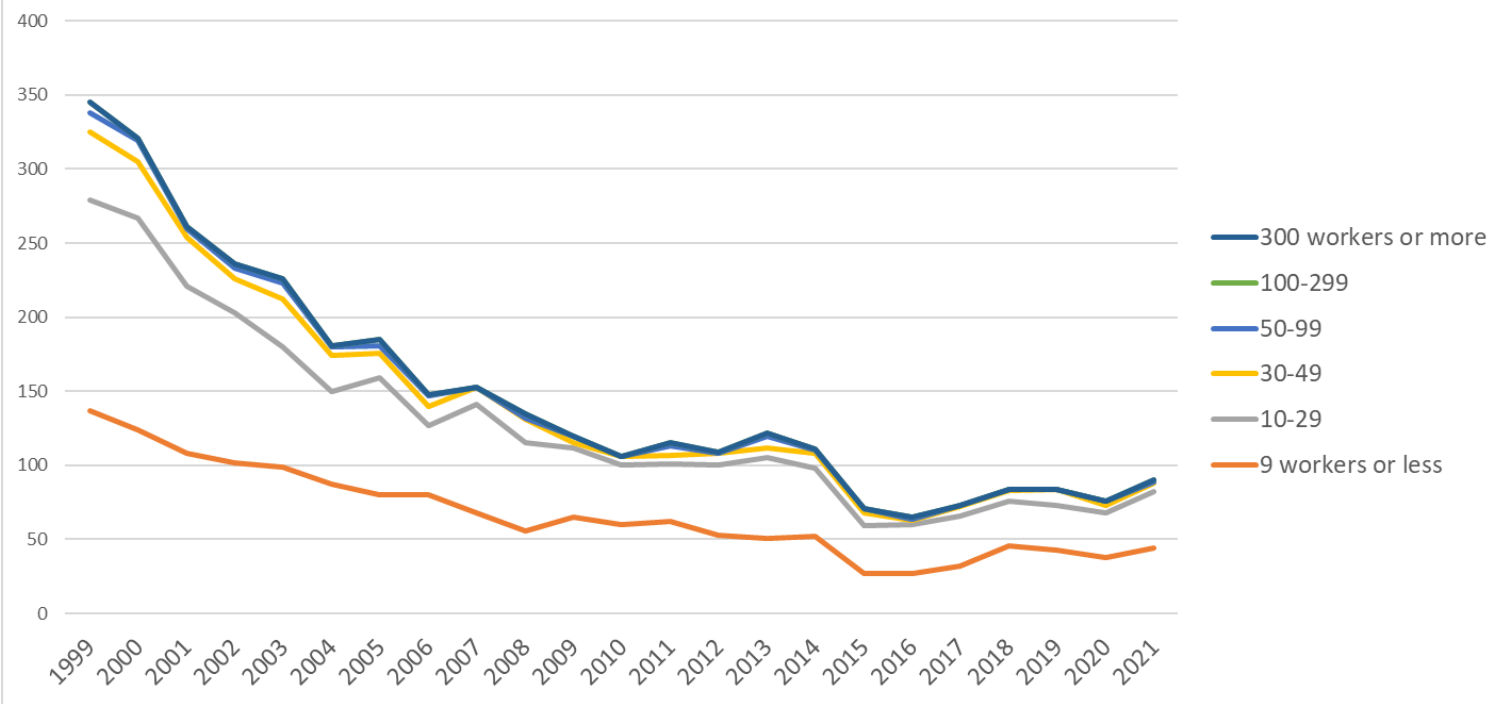
Transition of fatal and non-fatal accidents in type of accidents in code no. 030108 sand collapse prevention civil engineering work (1999-2021)

Transition of fatal and non-fatal accidents in workers ages (1999-2021)



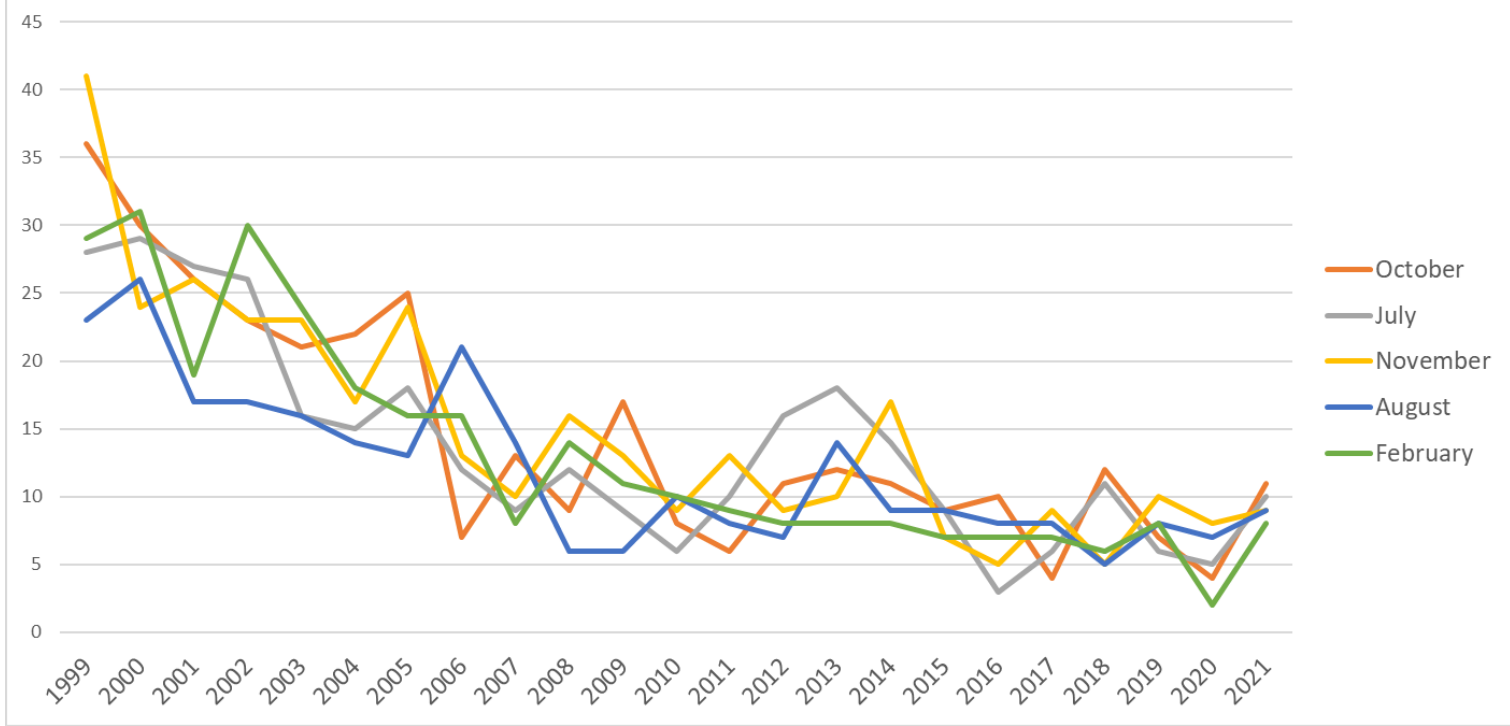
Transition of fatal and non-fatal accidents in workers ages in code no. 030108 sand collapse prevention civil engineering work (1999-2021)

Transition of fatal and non-fatal accidents in workers scales (1999-2021)



Transition of fatal and non-fatal accidents in workers scales in code no. 030108 sand collapse prevention civil engineering work (1999-2021)

Transition of fatal and non-fatal accidents in top 5 months (1999-2021)



Transition of fatal and non-fatal accidents in months in code no. 030108 sand collapse prevention civil engineering work (1999-2021)

2	machine	27	33	21	39	33	35	29	19	19	17	25	15	14	19	20	15	7	16	12	13	11	6	13	458	conveying machine
3	other equipment	31	28	19	25	16	12	21	18	21	7	16	4	10	9	12	12	9	6	8	9	10	9	13	325	other equipment
1	machine	61	43	49	27	45	27	28	24	26	27	12	18	19	15	22	22	19	13	10	17	20	19	9	572	machine
5	substance, material	41	53	32	27	19	20	18	14	12	16	9	15	13	15	8	6	3	3	6	7	6	5	9	357	substance, material
9	others	4	4		3	1	2	2	1	2	1	1	1	1	1	1		3		1	1	2	1	6	39	others
6	load	2	2	2	5	2	3	4	2	2	5	4		1	1	1	2	1	1	2	1	2	1	1	47	load
	total	345	321	261	236	226	181	185	148	153	135	120	106	115	109	122	111	71	65	73	84	84	76	90	3,417	total

Transition of fatal and non-fatal accidents in middle causal agents in code no. 030108 sand collapse prevention civil engineering work (1999-2021)

code	Causal (M) agents	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Causal (M) agents
71	natural environment	80	78	60	59	55	42	48	33	43	29	26	16	35	31	32	26	14	11	17	21	13	21	24	814	natural environment
41	temporary buildings, establishments	99	80	78	51	55	40	35	37	28	33	27	37	22	18	26	28	15	15	17	15	20	14	15	805	temporary buildings, establishments
37	tools	20	19	15	18	12	5	16	11	14	7	13	1	9	6	9	6	7	4	4	6	9	9	11	231	tools
14	construction machine	48	31	36	20	25	19	21	18	18	21	5	13	13	13	17	17	15	10	6	10	15	13	8	412	construction machine
22	conveying machine	14	16	15	17	12	16	20	7	15	7	9	8	8	11	10	9	5	6	7	10	5	2	8	237	conveying machine
52	materials	40	52	30	26	19	20	18	13	11	16	8	14	13	14	7	6	3	3	5	7	6	5	7	343	materials

91	other causal agent										1	1		1									1	5	9	other causal agent	
21	crane	12	10	2	17	18	16	9	8	4	9	10	5	5	5	7	3	2	9	4	2	5	2	3	167	crane	
23	vehicle	1	7	4	5	3	3		4		1	6	2	1	3	3	3		1	1	1	1	2	2	54	vehicle	
51	hazards, harmful substances	1	1	2	1					1	1		1	1						1					2	14	hazards, harmful substances
36	human power machine, tools	8	6	4	6	4	6	5	5	4		3	3	1	2	2	5	2		4	1			1	72	human power machine, tools	
16	general machine	5	4	7	3	6	4	5	2	3	1	2	3	2	1	4	1	3		1	2	1	3	1	64	general machine	
61	load	2	2	2	5	2	3	4	2	2	5	4		1	1	1	2	1	1	2	1	2	1	1	47	load	
92	no causal agent	3	4		3	1	2	2	1	1			1			1		2		1	1	2		1	26	no causal agent	
39	other equipments, facilities	2	3		1		1			2	3				1		1		2		2	1		1	20	other equipments, facilities	
13	woodworking machine	7	6	6	3	11	4	2	4	3	4	4	1	3	1	1	4		2	3		4	1		74	woodworking machine	
15	metal manufacturing machine		2		1	3				2	1	1	1	1				1	1		3		1		18	metal manufacturing machine	
99	unclassifiable	1								1					1			1							4	unclassifiable	
12	power transmission mechanism	1																			1				2	power transmission	

																									mechanism		
17	mobile silviculture machine																					1		1		2	mobile silviculture machine
31	pressure vessel	1																							1	pressure vessel	
35	electric equipment														1										1	electric equipment	
11	engine																									engine	
32	chemical facilities																									chemical facilities	
33	welding equipment																									welding equipment	
34	kiln, caldron																									kiln, caldron	
	total	345	321	261	236	226	181	185	148	153	135	120	106	115	109	122	111	71	65	73	84	84	76	90	3,417	total	

Transition of fatal and non-fatal accidents in small causal agents in code no. 030108 sand collapse prevention civil engineering work (1999-2021)

code	Causal (S) agents	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Causal (S) agents
711	natural ground, rock			44		45		34	25	28	24	17	12	23	22	18	17	10	5	7	12	11	17	15	386	natural ground, rock
712	standing tree			10		8		11	6	11	5	7	1	11	6	8	7	2	6	5	5	1	3	7	120	standing tree
221	truck			8		5		12	5	7	5	6	6	5	6	7	7	4	6	5	7	5	2	6	114	truck
418	building, establishment			24		21		14	11	13	6	9	15	7	8	4	6	6	3	6	6	7	7	5	178	building, establishment
371	ladder			7		8		9	7	7	3	8		4	2	4	4	3	3	2	4	6	5	5	91	ladder
911	other causal agent										1	1		1									1	5	9	other causal agent

364	hand tool			4		4		5	5	3		3	3	1	2	1	5	2		3	1			1	43	hand tool
413	stairs, landing stage			3		5		2	1	3	3	1	1	1	1	4	3	1			1	2	1	1	34	stairs, landing stage
719	other environments			4		2		3	1	3			1	1	1	3	2	2		4	2	1		1	31	other environments
921	no causal agent					1		2	1	1			1			1		2		1	1	2		1	14	no causal agent
391	other equipment, facilities									2	3				1		1		2		2	1		1	13	other equipment, facilities
715	high/cold temperature environment			1						1	1			1	1	3				1	1		1	1	13	high/cold temperature environment
143	foundation work machine					1		1							2			1					1	1	8	foundation work machine
612	machine/equipment as load							1											1					1	4	machine/equipment as load
411	scaffolding			23		9		11	6	4	7	7	5	4	3	5	9	3	4	1	4	3	1		109	scaffolding
523	stone, sand, substance			9		3		6	3	1	2	4	4	2		2	3	2		1	1	2			45	stone, sand, substance
136	chain saw			3		8			3		2	3	1	1		1	2		2	2		2	1		31	chain saw
229	other powered conveying machines			5		2		6	1	6		2	1	1	3	1	1			1	1				31	other powered conveying machines
611	load			2		2		3	2	2	4	4		1	1	1	2	1		2	1	2	1		31	load
211	crane					8		2		2	3		2		2	4	1			1		1	1		27	crane
412	timbering			6		3		2	2	2	3	1	1	1								1			22	timbering
131	circular sawing machine			3		3		2		3	1	1		2	1		2			1		1			20	circular sawing machine
227	rough terrain hauler			2		3		1	1				1		2	1	1	1			1				14	rough terrain hauler

363	machine								1						1								3	machine	
999	unclassifiable								1						1									3	unclassifiable
171	felling machine																			1			1	2	felling machine
512	inflammable substance								1															2	inflammable substance
121	power transmission mechanism																							1	power transmission mechanism
146	vehicle for high lift work																							1	vehicle for high lift work
222	forklift																							1	forklift
351	transmission																							1	transmission
111	engine																								engine
132	band sawing machine																								band sawing machine
133	wood planer machine																								wood planer machine
134	hollow chisel mortiser, wood borer																								hollow chisel mortiser, wood borer
135	chamfering machine, router, woodworking milling machine																								chamfering machine, router, woodworking milling machine
151	lathe																								lathe
	drill press, milling																								drill press, milling

	appliance																							appliance
216	gondola																							gondola
218	simple skyline yarding equipment																							simple skyline yarding equipment
226	straddle carrier																							straddle carrier
232	railway vehicle																							railway vehicle
239	other vehicles																							other vehicles
311	boiler																							boiler
312	pressure vessel																							pressure vessel
319	other pressure vessels																							other pressure vessels
321	chemical facilities																							chemical facilities
331	gas welding equipment																							gas welding equipment
332	arc welding equipment																							arc welding equipment
339	other welding equipment																							other welding equipment
341	kiln, caldron																							kiln, caldron
342	industrial dryer																							industrial dryer
349	other kiln, caldron																							other kiln, caldron
352	electric power facilities																							electric power facilities
359	other electrical equipment																							other electrical equipment

361	human power cranes																									human power cranes
362	human power hauling equipment																									human power hauling equipment
511	explosive substance																								explosive substance	
513	inflammable gas																								inflammable gas	
515	radiation																								radiation	
714	abnormal environment																								abnormal environment	
	total			261		226		185	148	153	135	120	106	115	109	122	111	71	65	73	84	84	76	90	2,334	total

Transition of fatal and non-fatal accidents in type of accidents in code no. 030108 sand collapse prevention civil engineering work (1999-2021)

code	Type of accidents	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Type of accidents
01	fall from height	117	117	93	82	67	60	72	57	51	53	44	32	47	38	40	44	24	21	19	32	29	28	31	1,198	fall from height
04	struck by flying or falling object	43	51	35	31	24	28	21	21	15	14	13	13	18	20	16	13	10	7	11	7	7	7	10	435	struck by flying or falling object
07	caught in/between	51	33	26	33	31	21	19	18	18	19	14	12	12	18	11	13	9	6	15	10	12	7	9	417	caught in/between
06	crashed by	29	23	20	23	20	15	13	12	29	7	10	9	9	7	17	8	7	11	5	11	8	9	8	310	crashed by
02	falling to same level	44	30	36	19	29	18	18	11	13	17	11	16	7	11	16	15	7	7	8	6	13	6	7	365	falling to same level
17	traffic accident (public road)	2	7	7	6	1	4	4	5	4	4	7	2	3	7	2	5	1	5	3	2	1	2	5	89	traffic accident (public road)
90	others	1	3	3		1		3	1	1		2		1	1						1			5	23	others

05	collapse	20	17	15	18	21	10	13	6	7	5	4	5	4	1	4	1	5	2	1	1	4	6	4	174	collapse	
03	crash	15	20	10	11	5	10	11	9	6	4	4	6	3	1	5	3	1	1	3	7	1	4	3	143	crash	
12	contact to harmful substance		1	1	1				1	1	2	1	1	1	1	1	1							3	16	contact to harmful substance	
19	reaction to motion/improper motion	7	7	2	8	6	6	4	3	1	3	1	4	4		2	1	3	2	2	2	4	1	2	75	reaction to motion/improper motion	
08	cut	12	10	10	3	17	8	6	4	5	5	7	4	4	3	4	7	2	3	4	4	4	5	1	132	cut	
11	contact to high/low-temperature	2	1	1		2	1			1		1	2		1	3				1	1	1	1	1	20	contact to high/low-temperature	
09	injury to the sole of the foot	1	1	2		1		1			2			1										1	10	injury to the sole of the foot	
16	fire													1				1		1					3	fire	
99	unclassifiable					1				1								1							3	unclassifiable	
18	traffic accident (others)				1												1								2	traffic accident (others)	
14	explosion	1																							1	explosion	
15	burst												1												1	burst	
10	drown																										drown
13	electric shock																										electric shock
	total	345	321	261	236	226	181	185	148	153	135	120	106	115	109	122	111	71	65	73	84	84	76	90	3,417	total	

code	Age	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Age
6	60 years old or more	121	126	74	83	58	48	49	31	50	41	43	34	31	33	44	39	20	20	30	38	43	24	28	1,108	60 years old or more
4	40-49	51	47	44	27	39	37	22	16	17	22	14	17	30	15	19	21	12	14	14	12	14	15	19	538	40-49
3	30-39	33	25	28	21	34	28	23	28	14	21	16	12	20	23	18	10	12	5	9	9	6	10	18	423	30-39
5	50-59	106	87	80	71	73	53	71	56	57	42	37	32	26	28	34	28	19	20	13	19	16	20	16	1,004	50-59
2	20-29	26	29	30	30	19	12	19	17	14	9	10	6	8	9	5	10	6	6	6	6	4	7	7	295	20-29
1	19 years old or less	8	7	5	4	3	3	1		1			5		1	2	3	2		1		1		2	49	19 years old or less
	total	345	321	261	236	226	181	185	148	153	135	120	106	115	109	122	111	71	65	73	84	84	76	90	3,417	total

Transition of fatal and non-fatal accidents in workers scales in code no. 030108 sand collapse prevention civil engineering work (1999-2021)

code	Workers scale	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Workers scale	
1	9 workers or less	137	124	108	102	99	87	80	80	68	56	65	60	62	53	51	52	27	27	32	46	43	38	44	1,541	9 workers or less	
2	10-29	142	143	113	101	81	63	79	47	73	59	47	40	39	47	54	46	32	33	34	30	30	30	38	1,401	10-29	
3	30-49	46	38	33	23	32	24	17	13	12	16	3	6	6	8	7	10	9	3	6	7	11	5	6	341	30-49	
4	50-99	13	14	6	7	11	6	5	7		1	5		6		8	2	3	1	1	1		3	1	101	50-99	
5	100-299	7	2	1	3	3	1	4	1		3			2	1	2	1		1					1	33	100-299	
6	300 workers or more																										300 workers or more
	total	345	321	261	236	226	181	185	148	153	135	120	106	115	109	122	111	71	65	73	84	84	76	90	3,417	total	

Transition of fatal and non-fatal accidents in months in code no. 030108 sand collapse prevention civil engineering work (1999-2021)

code	Month	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Month
10	October	36	30	26	23	21	22	25	7	13	9	17	8	6	11	12	11	9	10	4	12	7	4	11	334	October

7	July	28	29	27	26	16	15	18	12	9	12	9	6	10	16	18	14	9	3	6	11	6	5	10	315	July
11	November	41	24	26	23	23	17	24	13	10	16	13	9	13	9	10	17	7	5	9	5	10	8	9	341	November
8	August	23	26	17	17	16	14	13	21	14	6	6	10	8	7	14	9	9	8	8	5	8	7	9	275	August
2	February	29	31	19	30	24	18	16	16	8	14	11	10	9	8	8	8	7	7	7	6	8	2	8	304	February
12	December	21	31	21	19	22	9	15	9	23	16	12	4	8	6	7	8	1	3	5	10	6	10	8	274	December
6	June	21	22	16	12	15	16	16	13	9	7	6	7	9	8	9	5		3	4	6	6	6	8	224	June
1	January	38	33	24	17	19	18	10	18	15	14	12	14	11	11	9	8	5	3	5	4	9	4	6	307	January
5	May	26	19	16	21	16	14	11	10	11	8	10	13	16	8	3	8	5	6	9		7	8	6	251	May
4	April	26	24	16	12	8	9	15	9	3	6	5	8	4	10	5	4	5	5	3	6	6	5	6	200	April
9	September	31	29	24	17	23	8	11	10	19	17	13	10	7	7	15	11	3	7	7	14	7	10	5	305	September
3	March	25	23	29	19	23	21	11	10	19	10	6	7	14	8	12	8	11	5	6	5	4	7	4	287	March
	total	345	321	261	236	226	181	185	148	153	135	120	106	115	109	122	111	71	65	73	84	84	76	90	3,417	total

Transition of fatal and non-fatal accidents in prefectures in code no. 030108 sand collapse prevention civil engineering work (1999-2021)

code	Prefecture	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Prefecture
1	Hokkaido	17	10	16		13		8	7	4	6	14	6	5	4	4	1	3		4	6	8	3	9	148	Hokkaido
20	Nagano	19	18	14		10		8	8	15	5	6	3	4	5	8	4	5		6	4	3	3	8	156	Nagano
39	Kochi	20	24	13		5		5	6	7	7	4	8	3	4	4	9	1	5	1	4	4	11	6	151	Kochi
10	Gunma	7	12	15		7		5	4	3	4	4	4	2		5	2	4	1	2	2	6	1	6	96	Gunma
46	Kagoshima	18	14	11		20		14	10	15	12	7	7	15	7	8	5	6	9	6	7	3	3	5	202	Kagoshima
44	Oita	18	6	6		6		1	4	9	6	3	4	4	5	8	4	3	2	1	7	4		5	106	Oita
16	Toyama	13	7	5		6		4	1	6	1	2	2	2	6	4	1			3	2	1		5	71	Toyama
21	Gifu	25	27	10		11		5	7	5	6	2	2	6	6	5	2	5		2		1	2	4	133	Gifu
22	Shizuoka	7	8	6		7		5	5	8	4	7	2	4	3	4	5	6	4	9	4	2	2	4	106	Shizuoka

36	Tokushima	6	13	17		10		10	13	9	7	3	5	1	6	2	6	3	2	1	3	1	1		119	Tokushima
19	Yamanashi	6	8	7		6		4	5	6	11	4	1	6		5	3	3	2	3	2	2	4		88	Yamanashi
30	Wakayama	8	6	12		4		2	1		2		4	5	5	4	2			1	1		1		58	Wakayama
23	Aichi	9	8	4		4		5	2	2	2	3	2	1		1	2		1			1	1		48	Aichi
29	Nara	7	7	1		5		1	2	3		3	4		1	4	3		1			1	2		45	Nara
2	Aomori	3	2	5		3		4	2	4	1	3	1	2	1	1		3	1	1	1	2	2		42	Aomori
42	Nagasaki	7	1	2		3		2	2	1		1	4	1	1		5	1		2	2		2		37	Nagasaki
9	Tochigi	3	3	3		2		3	3	1	1	3	2	4	2		1		1			1			33	Tochigi
45	Miyazaki	5	4	5		2		1		2		1	1	2	2	1	1		1				2		30	Miyazaki
7	Fukushima	5	6	1		4		1		2				1	3	1	2						3		29	Fukushima
41	Saga	1	1	2				1				1	1	1		3		1			3		1		16	Saga
12	Chiba		3					2	2	1				1			1		1			1			12	Chiba
27	Osaka	2						1		1		1				1				1	1				8	Osaka
8	Ibaraki	2	1	1								1				1		1							7	Ibaraki
47	Okinawa							1							2	1									4	Okinawa
	total	345	321	261		226		185	148	153	135	120	106	115	109	122	111	71	65	73	84	84	76	90	3,000	total

Data source : <https://anzeninfo.mhlw.go.jp/user/anzen/tok/anst00.htm>

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