

Relation between causal agents and code no. 05 collapse as type of Fatal and non-fatal accidents in 1999-2021

| L | M | S | causal agent | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | total |
|---|----|-----|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| | | 111 | engine | | | | | 1 | | | 2 | 1 | | | 1 | 2 | | 1 | | | 1 | | 1 | | 1 | | 11 |
| | 11 | | engine | | | | | 1 | | | 2 | 1 | | | 1 | 2 | | 1 | | | 1 | | 1 | | 1 | | 11 |
| | | 121 | power transmission mechanism | | | 1 | | | | 1 | | | | 1 | | | | | | | | | | | 1 | | 4 |
| | 12 | | power transmission mechanism | | | 1 | | | | 1 | | | | 1 | | | | | | | | | | | 1 | | 4 |
| | | 131 | circular sawing machine | | | | | 2 | | | | | | 2 | | | 1 | | | | 2 | 1 | 1 | | 1 | | 10 |
| | | 132 | band sawing machine | | 1 | | | | | | | | | | | 1 | | | | | | | | | | | 2 |
| | | 133 | wood planer machine | | 1 | | | | | | | | 1 | | 2 | | | 1 | | | | | | | | | 5 |
| | | 134 | hollow chisel mortiser, wood borer | | | 1 | | | | | | | | | 1 | | | | 1 | | | | | | | | 3 |
| | | 135 | chamfering machine, router, woodworking milling machine | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 136 | chain saw | | | 1 | | 2 | | | | 3 | 3 | | | 2 | 5 | | 2 | | | | 2 | 2 | | 2 | 24 |
| | | 139 | other woodworking machines | | 1 | 1 | | 1 | | | 2 | 1 | 1 | 1 | | 1 | | 2 | | | | | | | 1 | 4 | 16 |
| | 13 | | woodworking machine | 4 | 3 | 3 | 4 | 5 | 5 | | 2 | 4 | 5 | 3 | 3 | 4 | 6 | 3 | 3 | | 2 | 1 | 3 | 2 | 2 | 6 | 73 |
| | | 141 | leveling, transporting or loading machine | | 7 | 4 | | 7 | | 3 | 2 | 2 | 3 | 1 | 1 | | 2 | | 1 | 5 | 5 | 2 | 1 | | | 5 | 51 |
| | | 142 | excavating machine | | 9 | 7 | | 9 | | 5 | 17 | 11 | 12 | 8 | 9 | 11 | 9 | 5 | 4 | 8 | 4 | 6 | 9 | 5 | 6 | 9 | 163 |
| | | 143 | foundation work machine | | 2 | 6 | | | | | 3 | | 2 | | 1 | 1 | | 2 | 4 | 2 | 4 | 1 | 3 | 2 | 1 | | 34 |
| | | 144 | hardening machine | | 2 | 4 | | | | 1 | | | 1 | 1 | 2 | 1 | 1 | | 1 | 2 | | 1 | | | | | 17 |
| | | 145 | demolition machine | | 6 | 3 | | 7 | | 1 | 4 | 4 | 5 | 3 | 1 | 4 | 1 | 9 | 1 | 4 | 2 | 7 | 6 | 5 | 5 | 4 | 82 |
| | | 146 | vehicle for high lift work | | 1 | 2 | | | | 1 | | | 1 | 1 | 3 | | | 1 | | 3 | 1 | 1 | 1 | 1 | | | 17 |
| | | 149 | other construction machines | | 3 | 7 | | 6 | | 8 | 2 | 9 | | 3 | 5 | 4 | 4 | 4 | 6 | 3 | 3 | 3 | 2 | 2 | 3 | | 77 |
| | 14 | | construction machine | 39 | 30 | 33 | 36 | 29 | 30 | 19 | 28 | 26 | 24 | 17 | 22 | 21 | 17 | 21 | 17 | 27 | 19 | 21 | 22 | 15 | 15 | 18 | 546 |
| | | 151 | lathe | | 2 | 1 | | | | | | | | | | 2 | 1 | | | | | 2 | 1 | | | 1 | 10 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|----|-----|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------|
| | | 152 | drill press, milling machine | | 2 | 1 | | 2 | | | | 2 | | | | 1 | 2 | | | 1 | | | 1 | 1 | 16 | | |
| | | 153 | grinding machine, buffing machine | | 2 | | | | | 2 | 3 | 3 | 1 | 1 | 1 | 1 | 1 | | 1 | | | 2 | | | 1 | 19 | |
| | | 154 | power press | | 5 | 2 | | 1 | | | | 1 | 1 | 2 | 1 | 1 | 1 | | | 1 | 1 | 1 | 2 | | | 20 | |
| | | 155 | forging pressure hammer | | | | | | | 1 | | | | | | | | | | | | | | | | 1 | |
| | | 156 | shearing machine | | 1 | | | | | | | | 1 | | | | | | | | | 1 | | | | 3 | |
| | | 159 | other metal manufacturing machines | | 3 | 3 | | 6 | | 3 | 7 | 7 | 4 | 1 | 3 | 5 | 2 | 3 | 2 | 1 | 1 | 2 | | 1 | 3 | 2 | 59 |
| | 15 | | metal manufacturing machine | 9 | 15 | 7 | 4 | 9 | 7 | 3 | 10 | 13 | 8 | 6 | 7 | 9 | 5 | 5 | 2 | 5 | 2 | 6 | 6 | 1 | 4 | 5 | 148 |
| | | 161 | centrifugal machine | | | | | | | | | | | | | | 1 | | | | | | | | | 1 | |
| | | 162 | mixer, grinder | | 1 | 3 | | 2 | | | 2 | | 1 | 2 | | | 2 | | 2 | 1 | 2 | 2 | 1 | 5 | 2 | 1 | 29 |
| | | 163 | roll machine (except printing roll machine) | | | | | | | | 1 | 3 | 1 | | | 2 | 1 | | 1 | 1 | 1 | | 1 | | 2 | | 13 |
| | | 164 | injection molding machine | | 1 | | | 2 | | 1 | 2 | | | 1 | 1 | 2 | | 1 | 1 | | | | | 1 | | | 13 |
| | | 165 | food manufacturing machine | | 2 | 5 | | 6 | | | 2 | 4 | 4 | 3 | 6 | 2 | 2 | 4 | 8 | 5 | 5 | 4 | 5 | 4 | | 5 | 76 |
| | | 166 | printing machine | | 1 | 1 | | | | | | 1 | 2 | 1 | | | | | | | | | | | | | 6 |
| | | 167 | industrial robot | | | | | | | | | 1 | 1 | | | | | | | | 1 | | | | | | 3 |
| | | 169 | other general power machines | | 17 | 21 | | 13 | | 19 | 13 | 10 | 9 | 16 | 10 | 13 | 14 | 19 | 10 | 9 | 21 | 13 | 15 | 10 | 11 | 9 | 272 |
| | 16 | | general machine | 28 | 22 | 30 | 19 | 23 | 26 | 20 | 20 | 19 | 18 | 23 | 17 | 19 | 19 | 25 | 22 | 15 | 29 | 20 | 22 | 20 | 15 | 15 | 486 |
| | | 171 | felling machine | | | | | | | | | | | | | | | | | 2 | | 2 | 2 | 2 | 1 | | 9 |
| | | 172 | mobile logging machine | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 173 | skyline yarding machine | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 179 | other mobile silviculture machine | | | | | | | | | | | | | | | | | | | | | | | | |
| | 17 | | mobile silviculture machine | | | | | | | | | | | | | | | | | 2 | | 2 | 2 | 2 | 1 | | 9 |
| 1 | | | machine | 80 | 70 | 74 | 63 | 67 | 68 | 43 | 62 | 63 | 55 | 50 | 50 | 55 | 47 | 55 | 44 | 47 | 55 | 48 | 56 | 40 | 40 | 45 | 1,277 |
| | | 211 | crane | | 60 | 48 | | 57 | | 37 | 62 | 53 | 60 | 30 | 29 | 41 | 39 | 40 | 47 | 40 | 30 | 37 | 35 | 40 | 33 | 31 | 849 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|----|--------------------------|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| | | 212 | mobile crane | | 20 | 16 | | 17 | | 19 | 24 | 23 | 15 | 16 | 9 | 14 | 11 | 9 | 13 | 16 | 8 | 7 | 17 | 16 | 10 | 8 | 288 |
| | | 213 | derrick crane | | | | 1 | | | | | 1 | | | 1 | | | | | | | | | | | | 3 |
| | | 214 | elevator, lift | | | 2 | | | 4 | 1 | | 1 | 3 | 2 | 1 | | | 1 | 3 | | 1 | | 1 | | 2 | | 22 |
| | | 215 | cargo lifting appliance | | | | | | | | | | | | | 1 | | | | | | 1 | | | | | 2 |
| | | 216 | gondola | | | 1 | | | | | | 1 | | | 1 | | | | | | | | | | | 1 | 4 |
| | | 217 | lumberyard equipment, logging cableway | | 1 | 1 | | 1 | | 1 | | 2 | 3 | 2 | | | | | | | | | | | | | 11 |
| | | 218 | simple skyline yarding equipment | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 219 | other powered crane | | 7 | 2 | | 2 | | 3 | 8 | 2 | | 1 | | 4 | 1 | 4 | 5 | 3 | 2 | 1 | 2 | 1 | 4 | 1 | 53 |
| | 21 | crane | | 79 | 88 | 70 | 64 | 78 | 76 | 64 | 95 | 80 | 81 | 52 | 40 | 62 | 51 | 54 | 66 | 62 | 40 | 46 | 55 | 58 | 47 | 43 | 1,451 |
| | | 221 | truck | | 42 | 41 | | 41 | | 36 | 28 | 32 | 35 | 22 | 24 | 33 | 25 | 36 | 36 | 24 | 25 | 32 | 26 | 18 | 22 | 19 | 597 |
| | | 222 | forklift | | 33 | 47 | | 55 | | 47 | 53 | 39 | 55 | 35 | 39 | 34 | 40 | 42 | 32 | 33 | 14 | 31 | 27 | 51 | 50 | 42 | 799 |
| | | 223 | railway equipment | | 1 | | | 1 | | | | | 1 | | | | | | | | | | | | | | 3 |
| | | 224 | conveyor | | 17 | 14 | | 9 | | 8 | 11 | 10 | 12 | 11 | 7 | 11 | 13 | 6 | 7 | 5 | 3 | 6 | 7 | 8 | 8 | 7 | 180 |
| | | 225 | loader | | | | | | 2 | | 1 | 1 | 1 | | | 1 | | | | | | 1 | | 1 | | | 8 |
| | | 226 | straddle carrier | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 227 | rough terrain hauler | | | 1 | | | | | | | | | | | | | | 1 | | 1 | 1 | | 1 | | 5 |
| | | 229 | other powered conveying machines | | 3 | 1 | | | | 6 | 2 | 5 | 2 | 3 | 2 | 1 | 2 | 4 | 1 | 2 | 7 | 3 | 2 | 3 | 2 | 1 | 52 |
| | 22 | conveying machine | | 77 | 96 | 104 | 86 | 106 | 110 | 99 | 94 | 87 | 105 | 73 | 72 | 79 | 81 | 88 | 76 | 64 | 50 | 72 | 64 | 81 | 83 | 70 | 1,917 |
| | | 231 | cars, bus, motorcycle | | 7 | 12 | | 18 | | 36 | 42 | 36 | 41 | 38 | 33 | 18 | 23 | 25 | 17 | 25 | 21 | 26 | 19 | 25 | 23 | 16 | 501 |
| | | 232 | railway vehicle | | | | | | | | 1 | | | | | | | | | | | | | | | | 1 |
| | | 239 | other vehicles | | 1 | 4 | | 3 | | 3 | 2 | 1 | 3 | 2 | 1 | 1 | 4 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | | 36 |
| | 23 | vehicle | | 18 | 8 | 16 | 23 | 21 | 21 | 39 | 45 | 37 | 44 | 40 | 34 | 19 | 27 | 26 | 19 | 27 | 22 | 28 | 20 | 26 | 24 | 16 | 600 |
| 2 | | crane, conveying machine | | 174 | 192 | 190 | 173 | 205 | 207 | 202 | 234 | 204 | 230 | 165 | 146 | 160 | 159 | 168 | 161 | 153 | 112 | 146 | 139 | 165 | 154 | 129 | 3,968 |
| | | 311 | boiler | | | | | | | | | | | | | 1 | | | | 1 | | | | | | | 2 |
| | | 312 | pressure vessel | | 1 | 2 | | | | | 1 | | | | | | 1 | | 1 | | 1 | | | | | | 7 |
| | | 319 | other pressure vessels | | 14 | 19 | | 19 | | 11 | 4 | 10 | 12 | 6 | 8 | 12 | 13 | 15 | 7 | 9 | 16 | 7 | 7 | 6 | 9 | 9 | 213 |
| | 31 | pressure vessel | | 9 | 15 | 21 | 12 | 19 | 15 | 11 | 5 | 10 | 12 | 6 | 8 | 12 | 15 | 15 | 7 | 10 | 17 | 8 | 7 | 6 | 9 | 9 | 258 |
| | | 321 | chemical facilities | | | 1 | | | | | | 1 | | | | | | | 1 | | 1 | | 1 | | | | 5 |
| | 32 | chemical facilities | | | 1 | 1 | | 1 | | | | 1 | | | | | | | 1 | | 1 | | 1 | | | | 7 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|----|-----|---|-------|-------|-------|-------|-------|-----|-----|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|---|
| | | 415 | roof, beam, haze, crossbeam, principal rafter | | 1 | 10 | | 11 | | 9 | 7 | 5 | 4 | 3 | 3 | 5 | 4 | 2 | | 1 | 5 | | 6 | 6 | | 1 | 83 | |
| | | 416 | working platform, boot board | | 10 | 17 | | 4 | | 2 | 4 | 4 | 3 | 4 | 5 | 5 | 2 | 3 | 3 | | 3 | 7 | 6 | 3 | 4 | 7 | 96 | |
| | | 417 | passage | | 8 | 14 | | 5 | | 15 | 11 | 3 | 6 | 5 | 5 | 3 | 11 | 4 | 6 | 8 | 9 | 5 | 5 | 4 | 3 | 5 | 135 | |
| | | 418 | building, establishment | | 142 | 138 | | 127 | | 81 | 116 | 117 | 117 | 82 | 81 | 117 | 128 | 88 | 88 | 80 | 89 | 99 | 101 | 77 | 73 | 95 | 2,036 | |
| | | 419 | other temporary buildings, establishments | | 95 | 90 | | 88 | | 67 | 84 | 73 | 57 | 59 | 56 | 49 | 79 | 56 | 65 | 69 | 71 | 67 | 68 | 67 | 64 | 63 | 1,387 | |
| | 41 | | temporary buildings, establishments | 333 | 350 | 359 | 324 | 289 | 280 | 236 | 296 | 276 | 239 | 199 | 192 | 222 | 258 | 192 | 194 | 203 | 214 | 205 | 207 | 184 | 174 | 206 | 5,632 | |
| 4 | | | temporary buildings, establishments | 333 | 350 | 359 | 324 | 289 | 280 | 236 | 296 | 276 | 239 | 199 | 192 | 222 | 258 | 192 | 194 | 203 | 214 | 205 | 207 | 184 | 174 | 206 | 5,632 | |
| | | 511 | explosive substance | | | | | | | | 1 | | | | | | 1 | | | | | | | | | | 3 | |
| | | 512 | inflammable substance | | | | | | | | | | | | 1 | | 1 | | | | | | | | | | 2 | |
| | | 513 | inflammable gas | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 514 | harmful substance | | | | | | | 1 | | | | | | | | | | | | | | | | | 1 | 2 |
| | | 515 | radiation | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 519 | other hazards, harmful substances | | | | | | | 1 | | | | 1 | | 1 | 1 | 1 | | | | | 3 | | | 1 | 9 | |
| | 51 | | hazards, harmful substances | | | | 3 | | 1 | 2 | 1 | | | 1 | 1 | 1 | 3 | 1 | | | | | 3 | 1 | | 2 | 20 | |
| | | 521 | metal material | | 761 | 643 | | 655 | | 581 | 611 | 603 | 565 | 396 | 442 | 392 | 383 | 391 | 400 | 400 | 367 | 350 | 352 | 376 | 292 | 290 | 9,250 | |
| | | 522 | lumber, bamboo | | 304 | 248 | | 240 | | 242 | 225 | 199 | 162 | 162 | 177 | 164 | 148 | 152 | 146 | 130 | 125 | 115 | 137 | 138 | 115 | 112 | 3,441 | |
| | | 523 | stone, sand, substance | | 77 | 67 | | 52 | | 55 | 39 | 51 | 44 | 26 | 31 | 23 | 20 | 33 | 31 | 21 | 23 | 33 | 19 | 19 | 24 | 17 | 705 | |
| | | 529 | other materials | | 146 | 142 | | 109 | | 118 | 124 | 113 | 106 | 90 | 94 | 99 | 95 | 99 | 84 | 89 | 76 | 85 | 79 | 63 | 62 | 74 | 1,947 | |
| | 52 | | materials | 1,260 | 1,288 | 1,100 | 1,067 | 1,056 | 989 | 996 | 999 | 966 | 877 | 674 | 744 | 678 | 646 | 675 | 661 | 640 | 591 | 583 | 587 | 596 | 493 | 493 | 18,659 | |
| 5 | | | substance, material | 1,260 | 1,288 | 1,100 | 1,070 | 1,056 | 990 | 998 | 1,000 | 966 | 877 | 675 | 745 | 679 | 649 | 676 | 661 | 640 | 591 | 583 | 590 | 597 | 493 | 495 | 18,679 | |
| | | 611 | load | | 570 | 569 | | 555 | | 509 | 501 | 518 | 489 | 420 | 385 | 368 | 387 | 391 | 384 | 377 | 376 | 348 | 401 | 352 | 375 | 332 | 8,607 | |
| | | 612 | machine/equipment as load | | 69 | 71 | | 53 | | 66 | 67 | 67 | 73 | 64 | 63 | 44 | 45 | 47 | 36 | 46 | 37 | 39 | 36 | 32 | 30 | 28 | 1,013 | |
| | 61 | | load | 570 | 639 | 640 | 568 | 608 | 561 | 575 | 568 | 585 | 562 | 484 | 448 | 412 | 432 | 438 | 420 | 423 | 413 | 387 | 437 | 384 | 405 | 360 | 11,319 | |
| 6 | | | load | 570 | 639 | 640 | 568 | 608 | 561 | 575 | 568 | 585 | 562 | 484 | 448 | 412 | 432 | 438 | 420 | 423 | 413 | 387 | 437 | 384 | 405 | 360 | 11,319 | |
| | | 711 | natural ground, rock | | 214 | 213 | | 182 | | 158 | 178 | 131 | 129 | 106 | 98 | 99 | 116 | 106 | 93 | 94 | 80 | 75 | 81 | 87 | 86 | 101 | 2,427 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-----|-----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| | 712 | standing tree | | 101 | 105 | | 107 | | 87 | 68 | 85 | 90 | 110 | 105 | 76 | 65 | 72 | 73 | 88 | 81 | 69 | 53 | 55 | 50 | 37 | 1,577 |
| | 713 | water | | | | | | | | 1 | | | | 1 | 5 | 1 | | | | | 1 | | | | 1 | 10 |
| | 714 | abnormal environment | | | | | | | | | | | | | | 1 | | | | | | | | | | 1 |
| | 715 | high/cold temperature environment | | | 2 | | 1 | | | 2 | | | | | | | | | | | | | | | | 5 |
| | 719 | other environments | | 17 | 7 | | 9 | | 27 | 18 | 13 | 15 | 6 | 13 | 11 | 7 | 8 | 13 | 10 | 5 | 8 | 17 | 6 | 3 | 8 | 221 |
| | 71 | natural environment | 401 | 332 | 327 | 338 | 299 | 305 | 272 | 267 | 229 | 234 | 222 | 217 | 191 | 190 | 186 | 179 | 192 | 166 | 153 | 151 | 148 | 139 | 147 | 5,285 |
| 7 | | environment | 401 | 332 | 327 | 338 | 299 | 305 | 272 | 267 | 229 | 234 | 222 | 217 | 191 | 190 | 186 | 179 | 192 | 166 | 153 | 151 | 148 | 139 | 147 | 5,285 |
| | 911 | other causal agent | | 33 | 28 | | 22 | | 17 | 12 | 5 | 7 | 11 | 7 | 18 | 11 | 7 | 16 | 9 | 10 | 19 | 5 | 9 | 6 | 1 | 253 |
| | 91 | other causal agent | 23 | 33 | 28 | 22 | 22 | 23 | 17 | 12 | 5 | 7 | 11 | 7 | 18 | 11 | 7 | 16 | 9 | 10 | 19 | 5 | 9 | 6 | 1 | 321 |
| | 921 | no causal agent | | | 1 | | | | 2 | 1 | | 1 | | 1 | | | 1 | 2 | 2 | 3 | 1 | | 3 | | 3 | 21 |
| | 92 | no causal agent | | | 1 | 1 | | | 2 | 1 | | 1 | | 1 | | | 1 | 2 | 2 | 3 | 1 | | 3 | | 3 | 22 |
| | 999 | unclassifiable | | 1 | | | | | | | 1 | | | | 1 | | | | 2 | | | 1 | | | | 6 |
| | 99 | unclassifiable | 1 | 1 | | 1 | | | | | 1 | | | | 1 | | | | 2 | | | 1 | | | | 8 |
| 9 | | others | 24 | 34 | 29 | 24 | 22 | 23 | 19 | 13 | 6 | 8 | 11 | 8 | 19 | 11 | 8 | 18 | 13 | 13 | 20 | 6 | 12 | 6 | 4 | 351 |
| 0 | | total | 3,395 | 3,478 | 3,378 | 3,180 | 3,172 | 3,107 | 2,999 | 3,120 | 3,042 | 2,859 | 2,429 | 2,464 | 2,356 | 2,388 | 2,391 | 2,334 | 2,259 | 2,261 | 2,212 | 2,312 | 2,236 | 2,057 | 2,065 | 61,494 |

Data of 2011 year include Industrial accidents caused by Great East Japan Earthquake in 2011.

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

Return to <https://www.jisha.or.jp/english/statistics/2021enfcs.html>