

Fatal & non-fatal accidents in mining in Japan in 1999-2020

mining industry Code No.02

Type of accidents in mining in 1999-2020

| 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 |
|------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| fall from height | 124 | 109 | 116 | 80 | 94 | 79 | 100 | 84 | 81 | 75 | 77 | 59 | 62 | 52 | 65 | 81 | 64 | 55 | 58 | 67 | 61 | 66 |
| falling to same level | 57 | 49 | 45 | 30 | 36 | 22 | 32 | 32 | 26 | 29 | 28 | 21 | 33 | 31 | 29 | 33 | 21 | 24 | 26 | 29 | 29 | 23 |
| crash | 40 | 33 | 25 | 33 | 19 | 18 | 23 | 24 | 23 | 6 | 11 | 18 | 11 | 6 | 14 | 8 | 12 | 10 | 8 | 17 | 10 | 7 |
| struck by flying or falling object | 68 | 67 | 64 | 50 | 40 | 25 | 29 | 45 | 28 | 32 | 23 | 26 | 20 | 17 | 23 | 23 | 16 | 16 | 14 | 14 | 14 | 18 |
| collapse | 22 | 21 | 20 | 18 | 14 | 10 | 15 | 9 | 15 | 7 | 4 | 7 | 6 | 7 | 2 | 5 | 7 | 3 | 8 | 5 | 6 | 6 |
| crashed by | 45 | 31 | 29 | 24 | 28 | 19 | 26 | 29 | 18 | 15 | 12 | 23 | 9 | 9 | 11 | 9 | 11 | 8 | 13 | 14 | 12 | 11 |
| caught in/between | 121 | 126 | 115 | 87 | 95 | 97 | 91 | 73 | 85 | 61 | 50 | 43 | 51 | 55 | 67 | 62 | 46 | 46 | 48 | 40 | 41 | 39 |
| cut | 8 | 10 | 13 | 16 | 3 | 8 | 3 | 6 | 7 | 5 | 5 | 1 | 1 | 5 | 4 | 5 | 3 | 3 | 8 | 6 | 5 | 6 |
| injury to the sole of the foot | 3 | 1 | 2 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 |
| drown | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| contact to high/low-temperature | 18 | 7 | 8 | 4 | 7 | 7 | 8 | 1 | 3 | 1 | 1 | 2 | 2 | 0 | 2 | 0 | 2 | 3 | 4 | 1 | 4 | 6 |
| contact to harmful substance | 2 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 2 | 1 | 1 |
| electric shock | 0 | 2 | 2 | 0 | 0 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| explosion | 3 | 0 | 4 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 |
| burst | 0 | 2 | 0 | 1 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| fire | 0 | 1 | 0 | 0 | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| traffic accident (public road) | 8 | 13 | 14 | 9 | 5 | 3 | 5 | 5 | 7 | 3 | 7 | 1 | 5 | 2 | 6 | 2 | 7 | 6 | 7 | 4 | 3 | 2 |
| traffic accident (others) | 1 | 0 | 1 | 2 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 0 |
| reaction to motion/improper motion | 35 | 30 | 35 | 15 | 16 | 25 | 18 | 10 | 11 | 13 | 11 | 12 | 14 | 10 | 11 | 9 | 13 | 8 | 9 | 11 | 16 | 13 |
| others | 2 | 5 | 0 | 2 | 2 | 1 | 2 | 1 | 3 | 1 | 2 | 2 | 2 | 0 | 1 | 0 | 4 | 1 | 2 | 1 | 0 | 0 |

| | | | | | | | | | | | | | | | | | | | | | | |
|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| unclassifiable | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| total | 557 | 510 | 495 | 371 | 372 | 319 | 355 | 322 | 310 | 249 | 231 | 218 | 218 | 197 | 239 | 244 | 209 | 184 | 209 | 214 | 203 | 199 |

Causal agents (middle) of industrial accidents in mining in 1999-2020

| 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 |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| engine | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| power transmission mechanism | 11 | 9 | 10 | 7 | 6 | 5 | 8 | 6 | 7 | 6 | 1 | 1 | 5 | 3 | 6 | 5 | 7 | 7 | 4 | 4 | 3 | 6 |
| woodworking machine | 0 | 5 | 3 | 5 | 2 | 2 | 2 | 0 | 2 | 0 | 1 | 1 | 2 | 1 | 0 | 3 | 1 | 1 | 0 | 1 | 1 | 1 |
| construction machine | 69 | 48 | 80 | 35 | 42 | 36 | 56 | 36 | 35 | 24 | 30 | 33 | 22 | 24 | 32 | 27 | 23 | 18 | 25 | 29 | 22 | 28 |
| metal manufacturing machine | 2 | 2 | 2 | 5 | 2 | 5 | 0 | 3 | 2 | 3 | 1 | 0 | 2 | 2 | 5 | 2 | 1 | 1 | 1 | 1 | 0 | 1 |
| general machine | 36 | 37 | 44 | 28 | 20 | 23 | 25 | 24 | 33 | 15 | 13 | 16 | 8 | 10 | 16 | 10 | 10 | 10 | 17 | 12 | 7 | 16 |
| mobile silviculture machine | | | | | | | | | | | | | | | | | 0 | 0 | 1 | 0 | 0 | 0 |
| crane | 7 | 9 | 12 | 12 | 3 | 2 | 3 | 6 | 9 | 5 | 2 | 5 | 7 | 3 | 2 | 8 | 5 | 5 | 5 | 1 | 6 | 8 |
| conveying machine | 111 | 125 | 100 | 97 | 104 | 94 | 90 | 91 | 72 | 73 | 84 | 50 | 52 | 61 | 75 | 65 | 65 | 60 | 65 | 58 | 58 | 54 |
| vehicle | 6 | 8 | 6 | 3 | 7 | 2 | 7 | 5 | 4 | 4 | 0 | 2 | 3 | 3 | 2 | 3 | 4 | 4 | 3 | 3 | 4 | 3 |
| pressure vessel | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| chemical facilities | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| welding equipment | 6 | 1 | 1 | 1 | 1 | 0 | 2 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 |
| kiln, caldron | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| electric equipment | 0 | 4 | 1 | 0 | 0 | 4 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 2 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 |
| human power machine, tools | 30 | 17 | 18 | 14 | 9 | 7 | 8 | 13 | 7 | 7 | 5 | 5 | 6 | 3 | 7 | 8 | 6 | 6 | 5 | 4 | 7 | 2 |
| tools | 25 | 18 | 18 | 21 | 18 | 14 | 24 | 14 | 14 | 17 | 11 | 6 | 8 | 9 | 11 | 7 | 8 | 8 | 12 | 13 | 12 | 8 |
| other equipments, facilities | 10 | 19 | 7 | 7 | 21 | 8 | 7 | 9 | 8 | 7 | 6 | 7 | 8 | 3 | 10 | 4 | 3 | 3 | 2 | 1 | 9 | 2 |
| temporary buildings, | 91 | 68 | 70 | 41 | 49 | 44 | 49 | 45 | 45 | 32 | 33 | 38 | 39 | 24 | 36 | 53 | 35 | 29 | 32 | 45 | 41 | 26 |

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|-----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| establishments | | | | | | | | | | | | | | | | | | | | | | |
| hazards, harmful substances | 4 | 3 | 3 | 0 | 3 | 5 | 2 | 0 | 0 | 1 | 0 | 1 | 1 | 3 | 0 | 1 | 0 | 3 | 4 | 3 | 2 | 1 |
| materials | 75 | 58 | 60 | 51 | 35 | 29 | 37 | 35 | 37 | 31 | 15 | 20 | 17 | 17 | 13 | 16 | 9 | 17 | 11 | 16 | 11 | 9 |
| load | 9 | 9 | 8 | 1 | 5 | 4 | 4 | 2 | 6 | 4 | 5 | 5 | 5 | 0 | 2 | 1 | 2 | 0 | 2 | 1 | 4 | 3 |
| natural environment | 49 | 56 | 39 | 32 | 33 | 30 | 21 | 25 | 17 | 16 | 16 | 19 | 26 | 18 | 17 | 23 | 21 | 7 | 15 | 13 | 10 | 21 |
| other causal agent | 6 | 2 | 3 | 3 | 0 | 1 | 3 | 1 | 3 | 0 | 0 | 0 | 2 | 1 | 1 | 0 | 2 | 0 | 1 | 0 | 0 | 2 |
| no causal agent | 8 | 11 | 9 | 6 | 12 | 3 | 3 | 4 | 5 | 4 | 7 | 6 | 4 | 8 | 3 | 5 | 5 | 5 | 3 | 7 | 6 | 6 |
| unclassifiable | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| total | 557 | 510 | 495 | 371 | 372 | 319 | 355 | 322 | 310 | 249 | 231 | 218 | 218 | 197 | 239 | 244 | 209 | 184 | 209 | 214 | 203 | 199 |

Causal agents (small) of industrial accidents in mining in 1999-2020

| 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 |
|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| engine | | | 0 | | 0 | | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| power transmission mechanism | | | 10 | | 6 | | 8 | 6 | 7 | 6 | 1 | 1 | 5 | 3 | 6 | 5 | 7 | 7 | 4 | 4 | 3 | 6 |
| circular sawing machine | | | 1 | | 2 | | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 |
| band sawing machine | | | 0 | | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| wood planer machine | | | 0 | | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| hollow chisel mortiser, wood borer | | | 0 | | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| chamfering machine, router, woodworking milling machine | | | 0 | | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| chain saw | | | 2 | | 0 | | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| other woodworking machines | | | 0 | | 0 | | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| leveling, transporting or loading machine | | | 34 | | 15 | | 27 | 18 | 14 | 9 | 11 | 13 | 12 | 8 | 10 | 9 | 8 | 5 | 12 | 11 | 8 | 15 |
| excavating machine | | | 36 | | 20 | | 20 | 15 | 18 | 13 | 15 | 17 | 9 | 15 | 15 | 15 | 14 | 9 | 9 | 11 | 12 | 10 |

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|--|--|--|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|
| machine | | | | | | | | | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 |
| other mobile silviculture machine | | | | | | | | | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 |
| crane | | | 3 | 3 | 1 | 4 | 2 | 3 | 0 | 2 | 3 | 2 | 1 | 2 | 1 | 2 | 3 | 1 | 3 | 4 | |
| mobile crane | | | 1 | 0 | 1 | 2 | 6 | 1 | 1 | 1 | 4 | 1 | 0 | 6 | 4 | 2 | 0 | 0 | 3 | 2 | |
| derrick crane | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| elevator, lift | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| cargo lifting appliance | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| gondola | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| lumberyard equipment, logging cableway | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| simple skyline yarding equipment | | | | | | | | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | |
| other powered crane | | | 8 | 0 | 1 | 0 | 1 | 1 | 1 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 2 | |
| truck | | | 45 | 39 | 27 | 42 | 24 | 40 | 42 | 23 | 24 | 23 | 37 | 26 | 39 | 30 | 29 | 25 | 28 | 32 | |
| forklift | | | 2 | 4 | 2 | 1 | 2 | 1 | 3 | 0 | 1 | 1 | 1 | 0 | 3 | 0 | 2 | 1 | 1 | 1 | |
| railway equipment | | | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | |
| conveyor | | | 46 | 55 | 54 | 44 | 41 | 32 | 34 | 25 | 22 | 35 | 36 | 36 | 21 | 24 | 30 | 25 | 23 | 20 | |
| loader | | | 3 | 2 | 5 | 3 | 2 | 0 | 3 | 0 | 3 | 2 | 0 | 2 | 1 | 3 | 3 | 5 | 3 | 1 | |
| straddle carrier | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| rough terrain hauler | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | |
| other powered conveying machines | | | 3 | 2 | 1 | 1 | 3 | 0 | 2 | 2 | 2 | 0 | 1 | 1 | 1 | 3 | 0 | 1 | 2 | 0 | |
| cars, bus, motorcycle | | | 4 | 7 | 6 | 5 | 4 | 2 | 0 | 1 | 3 | 2 | 1 | 3 | 2 | 4 | 3 | 2 | 4 | 1 | |
| railway vehicle | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| other vehicles | | | 2 | 0 | 1 | 0 | 0 | 2 | 0 | 1 | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 1 | 0 | 2 | |
| boiler | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| pressure vessel | | | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | |
| other pressure vessels | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| chemical facilities | | | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| gas welding | | | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | |

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|---|--|--|----|----|----|----|----|---|----|----|----|---|----|----|----|----|----|----|----|---|---|---|
| equipment | | | | | | | | | | | | | | | | | | | | | | |
| arc welding equipment | | | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| other welding equipment | | | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| kiln, caldron | | | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| industrial dryer | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| other kiln, caldron | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| transmission | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| electric power facilities | | | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| other electrical equipment | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| human power cranes | | | 1 | 3 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 0 | 3 | 0 | 1 | 0 | 0 | 0 | 0 |
| human power hauling equipment | | | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 |
| human power machine | | | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| hand tool | | | 16 | 6 | 6 | 12 | 5 | 6 | 4 | 5 | 6 | 3 | 3 | 6 | 6 | 3 | 5 | 3 | 4 | 2 | 2 | 2 |
| ladder | | | 9 | 7 | 13 | 6 | 3 | 9 | 4 | 4 | 6 | 7 | 9 | 2 | 5 | 5 | 6 | 5 | 9 | 4 | 4 | 4 |
| slinging tool | | | 5 | 4 | 4 | 2 | 4 | 3 | 4 | 0 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 5 | 2 | 2 | 2 | 2 |
| other tools | | | 4 | 7 | 7 | 6 | 7 | 5 | 3 | 2 | 1 | 1 | 1 | 4 | 2 | 1 | 4 | 3 | 1 | 2 | 2 | 2 |
| other equipment, facilities | | | 7 | 21 | 7 | 9 | 8 | 7 | 6 | 7 | 8 | 3 | 10 | 4 | 3 | 3 | 2 | 1 | 9 | 2 | 2 | 2 |
| scaffolding | | | 4 | 2 | 2 | 3 | 4 | 3 | 0 | 3 | 3 | 2 | 0 | 3 | 2 | 2 | 0 | 1 | 2 | 2 | 2 | 2 |
| timbering | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| stairs, landing stage | | | 7 | 9 | 11 | 8 | 8 | 6 | 11 | 3 | 3 | 6 | 6 | 6 | 5 | 3 | 5 | 5 | 6 | 5 | 5 | 5 |
| opening | | | 3 | 2 | 0 | 4 | 3 | 1 | 1 | 1 | 2 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| roof, beam, haze, crossbeam, principal rafter | | | 4 | 1 | 3 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 |
| working platform, boot board | | | 15 | 8 | 6 | 5 | 3 | 4 | 4 | 5 | 2 | 1 | 5 | 8 | 6 | 10 | 6 | 9 | 6 | 6 | 6 | 6 |
| passage | | | 19 | 12 | 14 | 11 | 9 | 9 | 8 | 14 | 14 | 9 | 15 | 16 | 13 | 9 | 16 | 16 | 10 | 6 | 6 | 6 |
| building, establishment | | | 11 | 10 | 9 | 10 | 14 | 7 | 2 | 7 | 10 | 4 | 6 | 8 | 5 | 4 | 3 | 7 | 8 | 6 | 6 | 6 |

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|----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 19 years old or less | 4 | 4 | 2 | 5 | 7 | 4 | 5 | 6 | 3 | 1 | 0 | 0 | 0 | 0 | 5 | 3 | 1 | 2 | 0 | 0 | 2 | 0 |
| 20-29 | 63 | 58 | 47 | 27 | 27 | 25 | 22 | 19 | 25 | 17 | 13 | 10 | 11 | 10 | 20 | 11 | 9 | 14 | 10 | 12 | 13 | 12 |
| 30-39 | 79 | 59 | 67 | 58 | 46 | 47 | 56 | 62 | 33 | 40 | 33 | 34 | 41 | 27 | 29 | 38 | 32 | 26 | 20 | 19 | 20 | 18 |
| 40-49 | 123 | 121 | 124 | 77 | 77 | 73 | 69 | 62 | 70 | 47 | 49 | 47 | 45 | 58 | 49 | 51 | 48 | 36 | 51 | 49 | 49 | 42 |
| 50-59 | 194 | 175 | 173 | 128 | 139 | 114 | 135 | 117 | 109 | 81 | 79 | 59 | 63 | 61 | 64 | 68 | 53 | 41 | 59 | 56 | 56 | 53 |
| 60 years old or more | 94 | 93 | 82 | 76 | 76 | 56 | 68 | 56 | 70 | 63 | 57 | 68 | 58 | 41 | 72 | 73 | 66 | 65 | 69 | 78 | 63 | 74 |
| total | 557 | 510 | 495 | 371 | 372 | 319 | 355 | 322 | 310 | 249 | 231 | 218 | 218 | 197 | 239 | 244 | 209 | 184 | 209 | 214 | 203 | 199 |

Workers' number of workplace of industrial accidents in mining in 1999-2020

| | | | | | | | | | | | | | | | | | | | | | | |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Workers scale | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
| 9 workers or less | 197 | 166 | 145 | 145 | 146 | 128 | 142 | 119 | 124 | 92 | 94 | 89 | 93 | 78 | 85 | 90 | 84 | 62 | 70 | 58 | 45 | 65 |
| 10-29 | 234 | 216 | 231 | 160 | 177 | 142 | 158 | 167 | 146 | 127 | 118 | 95 | 95 | 91 | 112 | 122 | 94 | 91 | 110 | 117 | 108 | 100 |
| 30-49 | 61 | 64 | 54 | 49 | 34 | 29 | 38 | 29 | 33 | 23 | 12 | 21 | 25 | 21 | 32 | 24 | 26 | 23 | 15 | 28 | 34 | 25 |
| 50-99 | 20 | 27 | 19 | 12 | 10 | 12 | 12 | 5 | 2 | 4 | 5 | 7 | 4 | 5 | 8 | 4 | 5 | 6 | 11 | 8 | 10 | 4 |
| 100-299 | 19 | 12 | 13 | 5 | 5 | 7 | 2 | 2 | 3 | 2 | 2 | 4 | 1 | 1 | 2 | 2 | 0 | 2 | 2 | 3 | 6 | 4 |
| 300 workers or more | 26 | 25 | 33 | 0 | 0 | 1 | 3 | 0 | 2 | 1 | 0 | 2 | 0 | 1 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 1 |
| total | 557 | 510 | 495 | 371 | 372 | 319 | 355 | 322 | 310 | 249 | 231 | 218 | 218 | 197 | 239 | 244 | 209 | 184 | 209 | 214 | 203 | 199 |

Month of industrial accidents in mining in 1999-2020

| | | | | | | | | | | | | | | | | | | | | | | |
|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Month | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
| January | 39 | 36 | 44 | 25 | 27 | 35 | 26 | 23 | 30 | 19 | 24 | 17 | 17 | 15 | 20 | 15 | 14 | 16 | 12 | 17 | 21 | 15 |
| February | 44 | 52 | 42 | 30 | 40 | 33 | 30 | 32 | 26 | 18 | 10 | 8 | 26 | 22 | 19 | 24 | 23 | 14 | 14 | 12 | 16 | 18 |
| March | 33 | 41 | 56 | 35 | 26 | 22 | 29 | 27 | 27 | 24 | 19 | 26 | 20 | 22 | 16 | 21 | 17 | 20 | 16 | 22 | 18 | 14 |
| April | 45 | 41 | 41 | 29 | 31 | 25 | 32 | 26 | 30 | 26 | 17 | 16 | 17 | 15 | 18 | 27 | 10 | 18 | 21 | 13 | 12 | 21 |
| May | 52 | 38 | 36 | 25 | 43 | 24 | 24 | 27 | 27 | 26 | 17 | 21 | 8 | 17 | 24 | 15 | 20 | 12 | 20 | 17 | 12 | 11 |
| June | 51 | 43 | 40 | 35 | 26 | 27 | 32 | 31 | 19 | 21 | 24 | 14 | 32 | 14 | 18 | 24 | 20 | 20 | 19 | 22 | 17 | 14 |
| July | 59 | 42 | 38 | 20 | 35 | 25 | 32 | 24 | 27 | 22 | 25 | 21 | 14 | 15 | 17 | 15 | 16 | 22 | 18 | 14 | 18 | 16 |
| August | 46 | 43 | 31 | 31 | 34 | 27 | 36 | 37 | 26 | 18 | 20 | 21 | 12 | 15 | 17 | 17 | 21 | 13 | 16 | 16 | 11 | 15 |
| September | 56 | 32 | 42 | 36 | 31 | 32 | 22 | 27 | 28 | 19 | 24 | 23 | 21 | 10 | 17 | 19 | 19 | 5 | 17 | 18 | 20 | 19 |
| October | 40 | 50 | 47 | 29 | 21 | 28 | 40 | 23 | 22 | 25 | 24 | 18 | 13 | 19 | 24 | 22 | 14 | 15 | 18 | 24 | 22 | 20 |
| November | 44 | 51 | 49 | 40 | 31 | 22 | 30 | 26 | 23 | 17 | 12 | 16 | 21 | 20 | 23 | 26 | 15 | 16 | 21 | 18 | 19 | 15 |
| December | 48 | 41 | 29 | 36 | 27 | 19 | 22 | 19 | 25 | 14 | 15 | 17 | 17 | 13 | 26 | 19 | 20 | 13 | 17 | 21 | 17 | 21 |

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|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| total | 557 | 510 | 495 | 371 | 372 | 319 | 355 | 322 | 310 | 249 | 231 | 218 | 218 | 197 | 239 | 244 | 209 | 184 | 209 | 214 | 203 | 199 |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

Prefecture of industrial accidents in mining in 1999-2020

| Prefecture | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Hokkaido | 49 | 50 | 38 | | 32 | | 35 | 24 | 23 | 17 | 28 | 26 | 26 | 20 | 26 | 24 | 15 | 22 | 21 | 24 | 23 | |
| Aomori | 8 | 5 | 11 | | 10 | | 5 | 5 | 3 | 4 | 6 | 5 | 4 | 4 | 2 | 3 | 1 | 3 | 2 | 2 | 4 | 3 |
| Iwate | 14 | 5 | 11 | | 8 | | 7 | 7 | 6 | 7 | 7 | 6 | 2 | 3 | 6 | 6 | 7 | 7 | 5 | 2 | 2 | 4 |
| Miyagi | 6 | 6 | 7 | | 4 | | 10 | 12 | 3 | 3 | 7 | 2 | 6 | 8 | 7 | 13 | 15 | 8 | 8 | 10 | 4 | 3 |
| Akita | 9 | 11 | 7 | | 7 | | 6 | 8 | 5 | 0 | 2 | 3 | 3 | 3 | 5 | 6 | 3 | 2 | 2 | 5 | 6 | 2 |
| Yamagata | 14 | 19 | 14 | | 9 | | 9 | 6 | 6 | 4 | 1 | 5 | 6 | 4 | 6 | 5 | 3 | 6 | 5 | 0 | 6 | 5 |
| Fukushima | 14 | 16 | 4 | | 14 | | 12 | 8 | 5 | 6 | 2 | 4 | 3 | 5 | 9 | 7 | 6 | 8 | 9 | 13 | 5 | 6 |
| Ibaraki | 13 | 13 | 9 | | 11 | | 11 | 6 | 9 | 9 | 5 | 8 | 6 | 8 | 5 | 4 | 7 | 5 | 5 | 7 | 6 | 10 |
| Tochigi | 12 | 11 | 13 | | 13 | | 13 | 18 | 15 | 16 | 8 | 7 | 13 | 8 | 13 | 7 | 4 | 7 | 4 | 8 | 11 | 7 |
| Gunma | 9 | 8 | 12 | | 10 | | 3 | 4 | 5 | 6 | 4 | 2 | 3 | 2 | 4 | 1 | 0 | 2 | 3 | 3 | 1 | 1 |
| Saitama | 6 | 11 | 5 | | 3 | | 3 | 1 | 6 | 2 | 1 | 4 | 2 | 1 | 1 | 2 | 0 | 2 | 7 | 9 | 6 | 0 |
| Chiba | 6 | 9 | 3 | | 4 | | 4 | 3 | 6 | 2 | 3 | 4 | 6 | 4 | 4 | 1 | 4 | 3 | 4 | 5 | 5 | 4 |
| Tokyo | 9 | 9 | 4 | | 2 | | 3 | 4 | 5 | 1 | 3 | 1 | 3 | 4 | 2 | 2 | 2 | 2 | 2 | 4 | 1 | 2 |
| Kanagawa | 6 | 4 | 8 | | 5 | | 1 | 4 | 3 | 4 | 1 | 2 | 1 | 1 | 2 | 5 | 2 | 1 | 2 | 1 | 1 | 4 |
| Niigata | 14 | 15 | 14 | | 18 | | 10 | 11 | 10 | 10 | 3 | 5 | 5 | 10 | 10 | 6 | 6 | 5 | 5 | 6 | 5 | 3 |
| Toyama | 10 | 6 | 10 | | 2 | | 9 | 1 | 1 | 4 | 6 | 4 | 4 | 1 | 4 | 4 | 3 | 1 | 3 | 3 | 1 | 1 |
| Ishikawa | 5 | 2 | 7 | | 7 | | 7 | 1 | 1 | 1 | 3 | 1 | 4 | 1 | 4 | 2 | 3 | 1 | 3 | 0 | 1 | 2 |
| Fukui | 7 | 11 | 1 | | 2 | | 2 | 0 | 4 | 0 | 0 | 1 | 2 | 2 | 3 | 1 | 4 | 3 | 4 | 2 | 0 | 3 |
| Yamanashi | 9 | 3 | 6 | | 7 | | 7 | 3 | 6 | 4 | 2 | 4 | 4 | 3 | 2 | 4 | 1 | 1 | 2 | 3 | 2 | 3 |
| Nagano | 18 | 9 | 15 | | 11 | | 9 | 4 | 10 | 9 | 10 | 6 | 5 | 2 | 6 | 5 | 4 | 3 | 5 | 8 | 10 | 8 |
| Gifu | 20 | 19 | 14 | | 16 | | 15 | 14 | 12 | 13 | 5 | 5 | 5 | 6 | 3 | 8 | 7 | 9 | 5 | 11 | 6 | 6 |
| Shizuoka | 16 | 8 | 8 | | 15 | | 8 | 12 | 14 | 16 | 16 | 4 | 6 | 11 | 5 | 9 | 4 | 3 | 10 | 7 | 6 | 3 |
| Aichi | 12 | 15 | 18 | | 13 | | 7 | 7 | 6 | 9 | 6 | 9 | 8 | 14 | 8 | 9 | 2 | 5 | 4 | 8 | 7 | 10 |
| Mie | 12 | 31 | 27 | | 17 | | 12 | 8 | 4 | 8 | 5 | 6 | 5 | 6 | 13 | 10 | 9 | 6 | 4 | 7 | 7 | 6 |
| Shiga | 4 | 4 | 5 | | 6 | | 2 | 3 | 2 | 1 | 2 | 3 | 3 | 0 | 3 | 0 | 2 | 3 | 1 | 1 | 1 | 2 |
| Kyoto | 8 | 4 | 8 | | 12 | | 11 | 4 | 5 | 6 | 2 | 1 | 3 | 3 | 7 | 6 | 5 | 3 | 8 | 2 | 1 | 6 |
| Osaka | 5 | 4 | 7 | | 2 | | 3 | 0 | 4 | 4 | 1 | 3 | 3 | 3 | 1 | 0 | 6 | 3 | 6 | 3 | 2 | 3 |
| Hyogo | 21 | 16 | 21 | | 6 | | 13 | 10 | 12 | 7 | 10 | 13 | 9 | 11 | 7 | 11 | 6 | 3 | 5 | 3 | 8 | 11 |
| Nara | 1 | 1 | 0 | | 2 | | 2 | 4 | 3 | 1 | 1 | 0 | 2 | 2 | 2 | 1 | 4 | 3 | 0 | 0 | 4 | 1 |
| Wakayama | 4 | 4 | 4 | | 2 | | 2 | 2 | 2 | 1 | 1 | 0 | 2 | 1 | 2 | 1 | 2 | 3 | 1 | 1 | 1 | 2 |
| Tottori | 3 | 4 | 2 | | 5 | | 4 | 1 | 2 | 1 | 1 | 2 | 1 | 0 | 1 | 1 | 0 | 2 | 1 | 2 | 0 | 1 |

| | | | | | | | | | | | | | | | | | | | | |
|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Shimane | 9 | 7 | 4 | 5 | 7 | 3 | 7 | 5 | 5 | 4 | 5 | 2 | 2 | 1 | 3 | 3 | 1 | 4 | 2 | 2 |
| Okayama | 10 | 12 | 11 | 9 | 10 | 10 | 12 | 7 | 6 | 4 | 7 | 6 | 10 | 9 | 6 | 7 | 10 | 5 | 4 | 6 |
| Hiroshima | 15 | 17 | 14 | 8 | 8 | 6 | 12 | 3 | 6 | 3 | 5 | 3 | 8 | 7 | 6 | 2 | 7 | 8 | 6 | 5 |
| Yamaguchi | 5 | 7 | 7 | 7 | 3 | 8 | 4 | 1 | 4 | 5 | 2 | 4 | 3 | 6 | 5 | 3 | 1 | 2 | 1 | 3 |
| Tokushima | 4 | 8 | 4 | 3 | 1 | 5 | 2 | 1 | 4 | 1 | 1 | 2 | 1 | 3 | 2 | 2 | 5 | 2 | 3 | 3 |
| Kagawa | 18 | 7 | 9 | 9 | 11 | 7 | 7 | 7 | 5 | 3 | 0 | 1 | 2 | 4 | 2 | 6 | 4 | 3 | 4 | 3 |
| Ehime | 14 | 11 | 15 | 16 | 17 | 15 | 14 | 8 | 11 | 11 | 13 | 6 | 13 | 13 | 9 | 4 | 4 | 6 | 3 | 4 |
| Kochi | 9 | 1 | 7 | 2 | 3 | 2 | 4 | 3 | 3 | 3 | 1 | 1 | 0 | 1 | 1 | 1 | 2 | 1 | 3 | 3 |
| Fukuoka | 18 | 12 | 14 | 7 | 4 | 13 | 6 | 8 | 9 | 6 | 8 | 4 | 5 | 6 | 6 | 6 | 4 | 5 | 5 | 3 |
| Saga | 6 | 3 | 7 | 3 | 1 | 6 | 2 | 4 | 2 | 4 | 1 | 2 | 1 | 3 | 4 | 1 | 1 | 5 | 2 | 2 |
| Nagasaki | 61 | 47 | 50 | 3 | 7 | 6 | 7 | 5 | 5 | 2 | 5 | 1 | 4 | 6 | 2 | 2 | 4 | 2 | 7 | 5 |
| Kumamoto | 21 | 24 | 12 | 10 | 13 | 18 | 8 | 8 | 10 | 10 | 5 | 8 | 5 | 5 | 6 | 7 | 7 | 5 | 12 | 7 |
| Oita | 10 | 9 | 5 | 5 | 9 | 9 | 6 | 6 | 2 | 3 | 3 | 1 | 3 | 6 | 4 | 6 | 1 | 2 | 2 | 3 |
| Miyazaki | 6 | 4 | 14 | 2 | 4 | 7 | 4 | 3 | 4 | 6 | 2 | 1 | 3 | 3 | 4 | 1 | 4 | 1 | 3 | 2 |
| Kagoshima | 7 | 8 | 7 | 8 | 10 | 11 | 15 | 4 | 3 | 6 | 5 | 4 | 5 | 4 | 3 | 5 | 6 | 5 | 2 | 3 |
| Okinawa | 0 | 0 | 2 | 0 | 2 | 1 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 |
| total | 557 | 510 | 495 | 372 | 355 | 322 | 310 | 249 | 231 | 218 | 218 | 197 | 239 | 244 | 209 | 184 | 209 | 214 | 203 | 199 |

Industrial accidents mean fatal and non-fatal injuries and occupational diseases with work absence of 4 days and more. 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)

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Fatal accidents in mining in Japan in 1999-2020

mining industry Code No.02

Type of fatal accidents in mining in 1999-2020

| 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 |
|-----------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| fall from height | 7 | 3 | 12 | 6 | 2 | 5 | 4 | 3 | 5 | 3 | 7 | 2 | 7 | 2 | 2 | 4 | 3 | 1 | 5 | 1 | 2 | 1 |
| falling to same level | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| crash | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| struck by flying or | 4 | 2 | 2 | 1 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 |

| | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------------|----|----|----|----|----|----|----|----|----|---|---|---|----|---|---|----|----|---|----|---|----|---|
| construction machine | 7 | 2 | 7 | 6 | 1 | 5 | 4 | 2 | 4 | 3 | 3 | 1 | 6 | 1 | 2 | 5 | 2 | 1 | 3 | 0 | 2 | 2 |
| metal manufacturing machine | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| general machine | 1 | 4 | 3 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| mobile silviculture machine | | | | | | | | | | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 |
| crane | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| conveying machine | 4 | 7 | 3 | 4 | 3 | 3 | 4 | 7 | 7 | 3 | 5 | 3 | 2 | 2 | 2 | 2 | 4 | 2 | 5 | 0 | 5 | 3 |
| vehicle | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| pressure vessel | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| chemical facilities | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| welding equipment | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| kiln, caldron | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| electric equipment | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| human power machine, tools | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| tools | 0 | 2 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| other equipments, facilities | 0 | 1 | 1 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| temporary buildings, establishments | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 1 | 2 | 1 | 0 | 2 | 0 | 1 | 0 |
| hazards, harmful substances | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| materials | 2 | 2 | 1 | 0 | 1 | 0 | 1 | 2 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| load | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| natural environment | 7 | 6 | 5 | 5 | 2 | 4 | 4 | 3 | 0 | 1 | 1 | 0 | 3 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 1 |
| other causal agent | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| no causal agent | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| unclassifiable | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| total | 24 | 26 | 24 | 17 | 14 | 16 | 16 | 16 | 13 | 8 | 9 | 5 | 13 | 6 | 8 | 13 | 10 | 7 | 13 | 2 | 10 | 8 |

| | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|----|----|----|----|----|----|----|----|----|---|---|---|----|---|---|----|----|---|----|---|----|---|
| stone, sand, substance | 1 | 2 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| other materials | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| load | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| machine/equipment as load | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| natural ground, rock | 7 | 5 | 5 | 5 | 2 | 2 | 4 | 2 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 1 | 1 | 2 | 1 |
| standing tree | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| water | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| abnormal environment | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| high/cold temperature environment | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| other environments | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| other causal agent | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| no causal agent | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| unclassifiable | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| total | 24 | 26 | 24 | 17 | 14 | 16 | 16 | 16 | 13 | 8 | 9 | 5 | 13 | 6 | 8 | 13 | 10 | 7 | 13 | 2 | 10 | 8 |

Workers age of fatal accidents in mining in 1999-2020

| Age | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|----------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 19 years old or less | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20-29 | 1 | 2 | 2 | 0 | 3 | 1 | 0 | 2 | 1 | 0 | 0 | 0 | 2 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 1 |
| 30-39 | 3 | 2 | 2 | 2 | 0 | 4 | 2 | 2 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 |
| 40-49 | 2 | 6 | 3 | 8 | 5 | 0 | 4 | 1 | 1 | 2 | 3 | 0 | 4 | 1 | 1 | 0 | 1 | 1 | 2 | 0 | 1 | 2 |
| 50-59 | 11 | 11 | 9 | 4 | 4 | 7 | 7 | 8 | 7 | 3 | 1 | 2 | 2 | 2 | 1 | 4 | 5 | 3 | 4 | 0 | 3 | 1 |
| 60 years old or more | 7 | 5 | 8 | 3 | 2 | 4 | 3 | 1 | 3 | 2 | 3 | 3 | 5 | 2 | 5 | 6 | 4 | 2 | 7 | 1 | 5 | 4 |
| total | 24 | 26 | 24 | 17 | 14 | 16 | 16 | 16 | 13 | 8 | 9 | 5 | 13 | 6 | 8 | 13 | 10 | 7 | 13 | 2 | 10 | 8 |

Workers' number of workplace of fatal accidents in mining in 1999-2020

| Workers scale | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|-------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 9 workers or less | 5 | 12 | 5 | 5 | 3 | 6 | 5 | 3 | 4 | 1 | 2 | 3 | 4 | 3 | 3 | 6 | 4 | 4 | 9 | 1 | 3 | 5 |

| | | | | | | | | | | | | | | | | | | | | | | |
|---------------------|----|----|----|----|----|----|----|----|----|---|---|---|----|---|---|----|----|---|----|---|----|---|
| 10-29 | 17 | 10 | 13 | 9 | 8 | 8 | 10 | 12 | 7 | 7 | 6 | 2 | 7 | 2 | 5 | 6 | 5 | 2 | 3 | 1 | 6 | 3 |
| 30-49 | 2 | 1 | 5 | 3 | 3 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 |
| 50-99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 100-299 | 0 | 2 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300 workers or more | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| total | 24 | 26 | 24 | 17 | 14 | 16 | 16 | 16 | 13 | 8 | 9 | 5 | 13 | 6 | 8 | 13 | 10 | 7 | 13 | 2 | 10 | 8 |

Month of fatal accidents in mining in 1999-2020

| Month | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| January | 3 | 4 | 3 | 1 | 0 | 2 | 2 | 2 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 1 | 1 | 0 | 1 | 0 |
| February | 0 | 3 | 4 | 2 | 3 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 2 | 1 | 2 | 0 | 1 | 1 |
| March | 0 | 1 | 3 | 2 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 1 | 1 | 2 | 1 | 0 | 0 | 0 | 2 | 0 |
| April | 2 | 3 | 1 | 1 | 1 | 2 | 2 | 4 | 2 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 1 | 1 | 2 | 0 | 0 | 1 |
| May | 2 | 0 | 0 | 1 | 3 | 2 | 2 | 0 | 2 | 2 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 |
| June | 5 | 2 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 2 | 4 | 0 | 3 | 1 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 1 |
| July | 1 | 0 | 2 | 1 | 2 | 0 | 2 | 3 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 0 | 1 | 0 | 1 | 0 |
| August | 3 | 2 | 1 | 2 | 1 | 4 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 |
| September | 2 | 1 | 2 | 2 | 0 | 2 | 2 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 2 | 1 |
| October | 1 | 2 | 4 | 1 | 1 | 1 | 1 | 3 | 1 | 0 | 0 | 1 | 0 | 0 | 2 | 1 | 0 | 0 | 2 | 0 | 3 | 0 |
| November | 3 | 4 | 2 | 3 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 2 | 1 | 0 | 0 | 2 |
| December | 2 | 4 | 1 | 1 | 1 | 0 | 0 | 1 | 2 | 1 | 2 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| total | 24 | 26 | 24 | 17 | 14 | 16 | 16 | 16 | 13 | 8 | 9 | 5 | 13 | 6 | 8 | 13 | 10 | 7 | 13 | 2 | 10 | 8 |

Prefecture of fatal accidents in mining in 1999-2020

| Prefecture | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Hokkaido | 2 | 4 | 3 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 3 | 0 | 1 | 1 | 2 | 1 | 2 | 0 | 0 | 1 |
| Aomori | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Iwate | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Miyagi | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Akita | 3 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Yamagata | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Fukushima | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| Ibaraki | 0 | 2 | 0 | 0 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 |

| | | | | | | | | | | | | | | | | | | | | | | |
|-----------|----|----|----|----|----|----|----|----|----|---|---|---|----|---|---|----|----|---|----|---|----|---|
| Oita | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| Miyazaki | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Kagoshima | 0 | 1 | 0 | 2 | 0 | 1 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Okinawa | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| total | 24 | 26 | 24 | 17 | 14 | 16 | 16 | 16 | 13 | 8 | 9 | 5 | 13 | 6 | 8 | 13 | 10 | 7 | 13 | 2 | 10 | 8 |

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

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