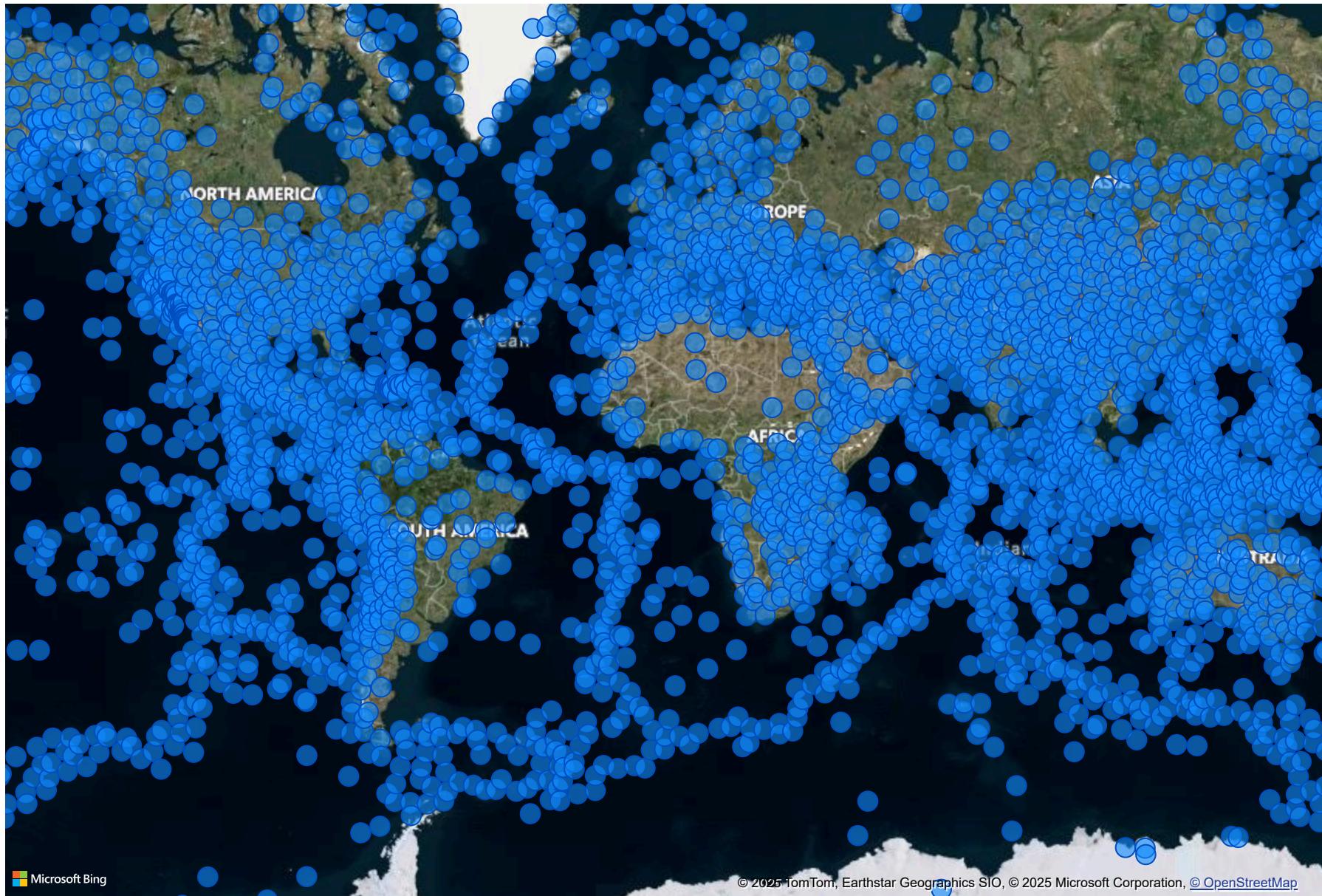




## Global Earthquake Distribution by Magnitude



date\_day

All

date\_month

All

date\_year

All

time\_utc

1/1/1990

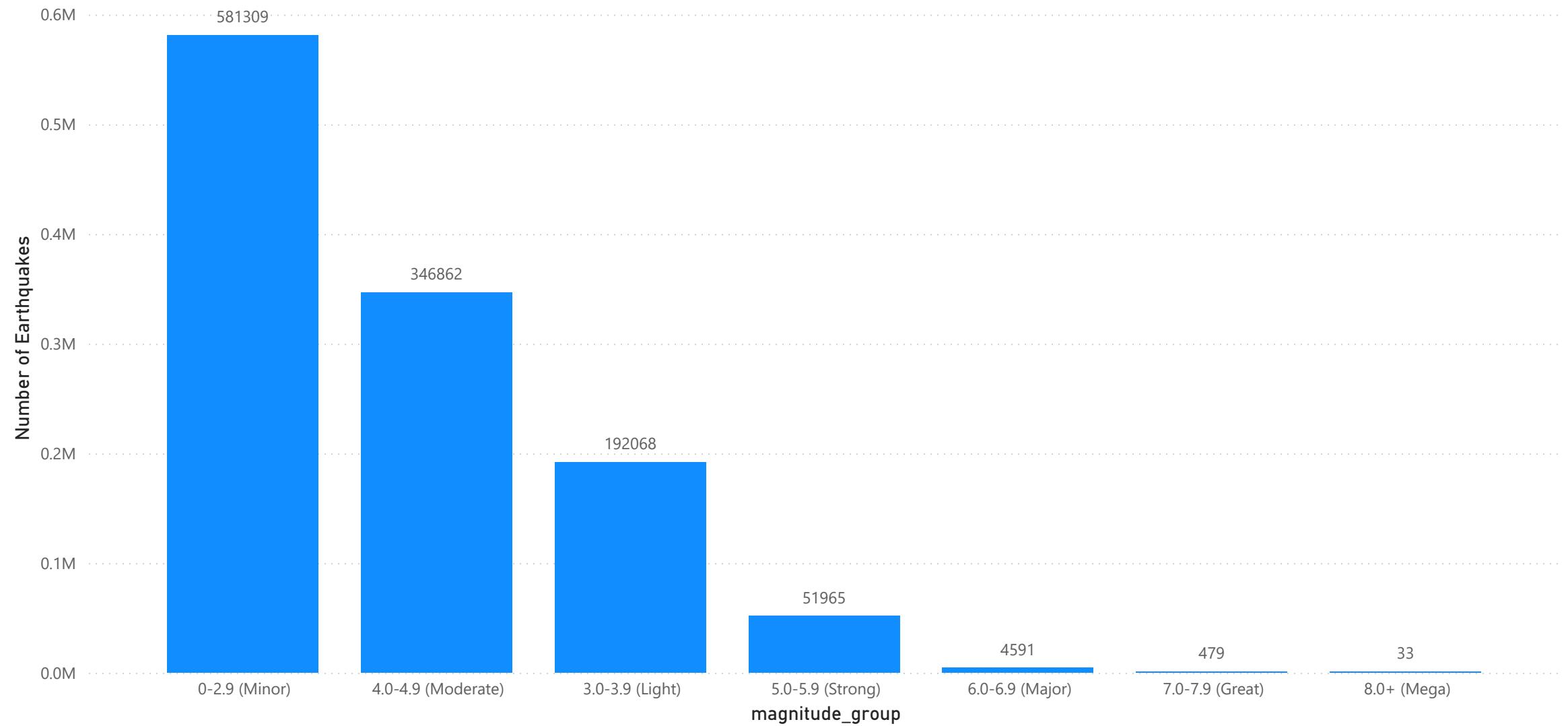
12/30/2024

magnitude\_group

All

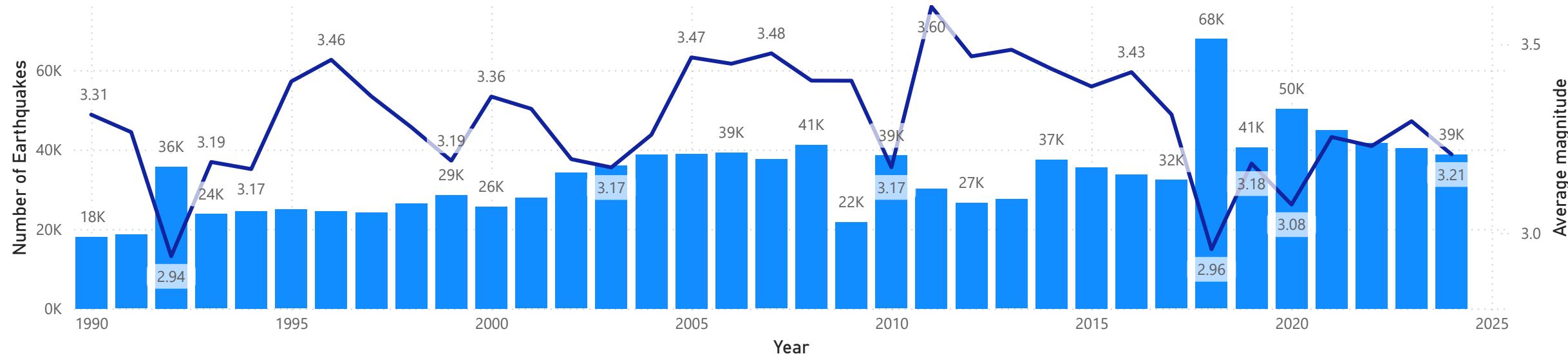


## Earthquake Count by Magnitude Group



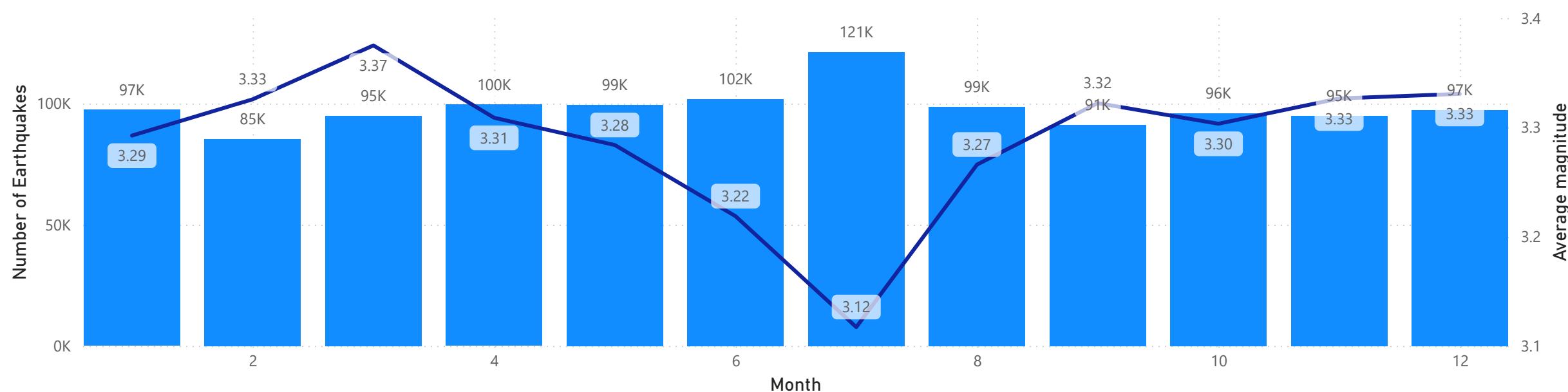
## Earthquake Frequency & Magnitude Trend by Year

● Count of earthquake\_id ● Average of magnitude

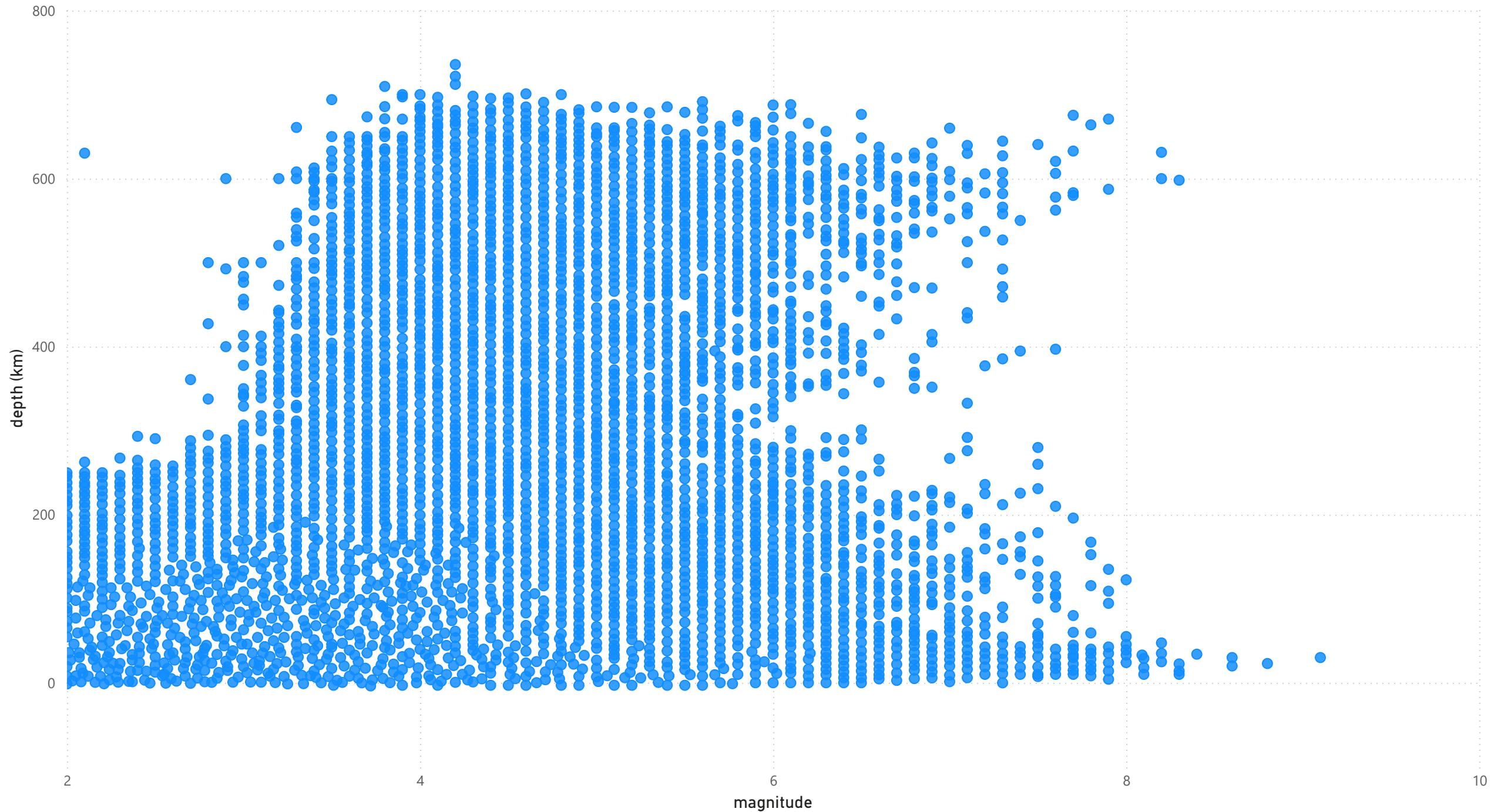


## Earthquake Frequency & Magnitude Trend by Month

● Count of earthquake\_id ● Average of magnitude



### Earthquake Magnitude vs Depth (km)



**1.18M**

Total earthquake

**9.10**

Maximum magnitude

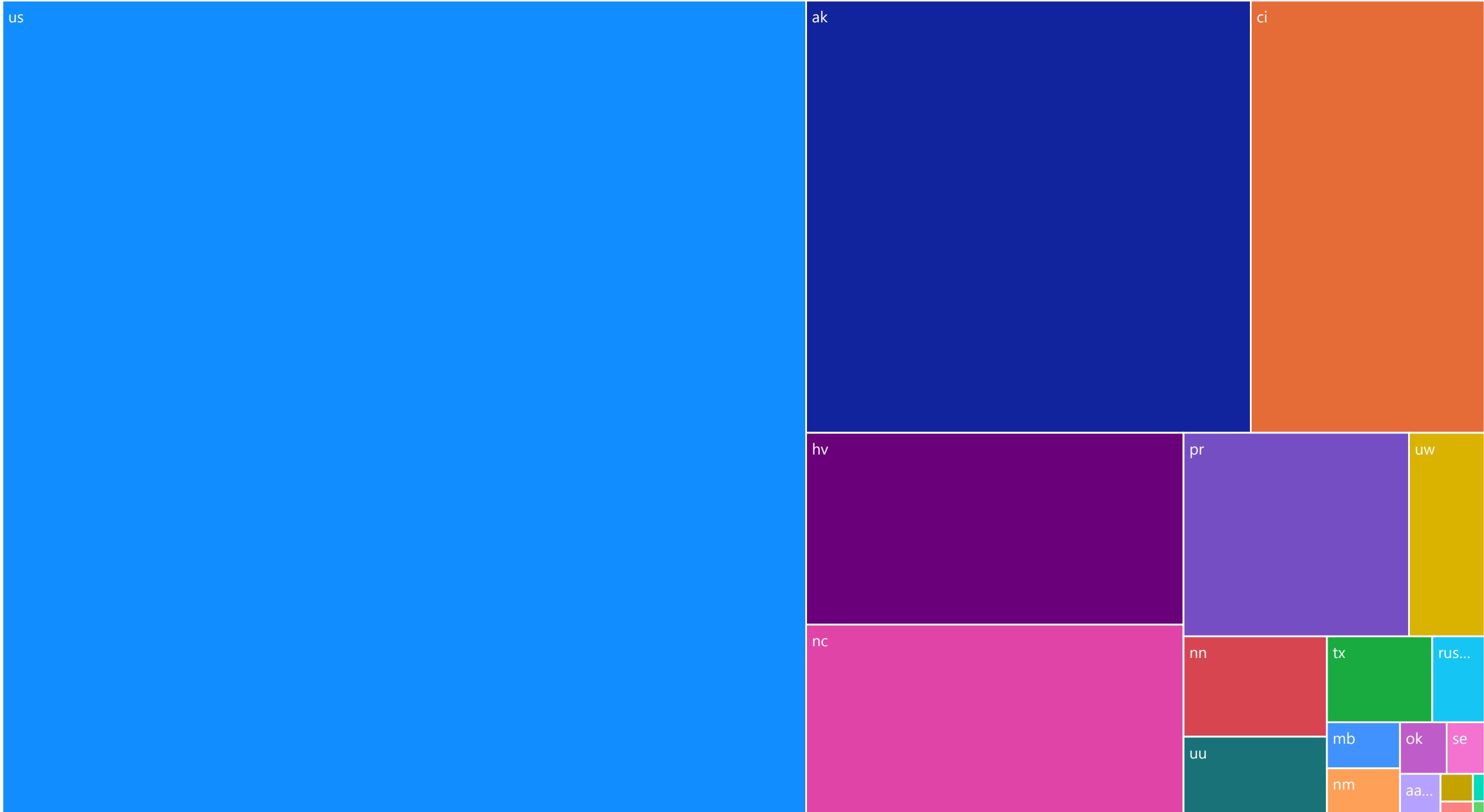
**3.28**

Average magnitude

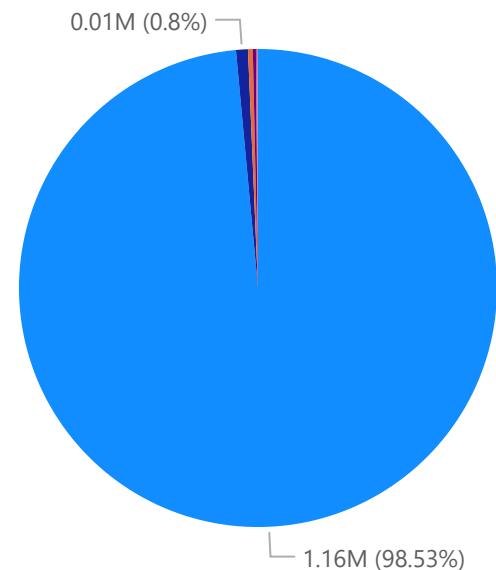
**44.35**

Average depth in km

## Network Contributions



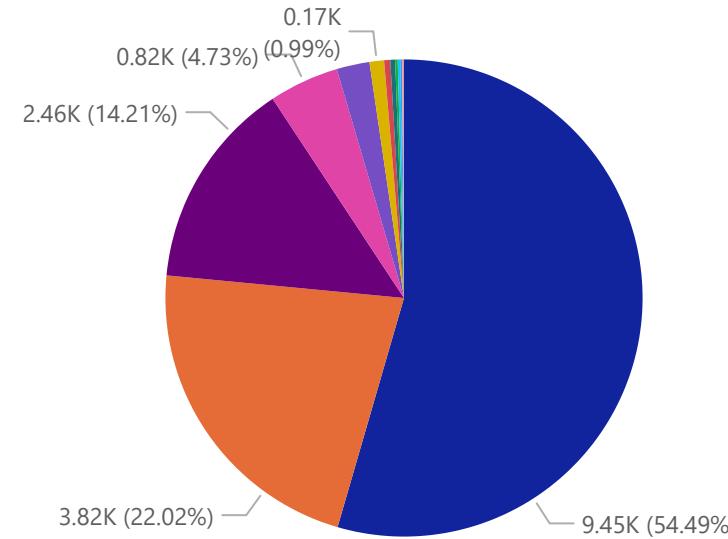
### Event Type Distribution



event\_type\_name

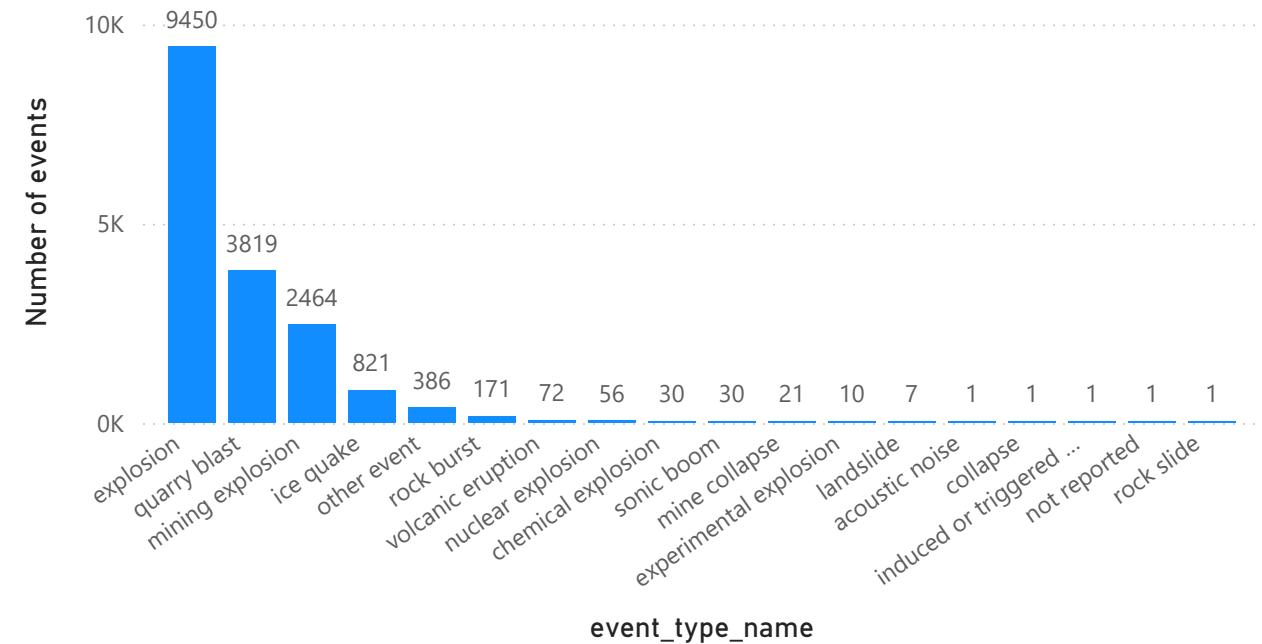
- earthquake
- explosion
- quarry blast
- mining explosion
- ice quake
- other event
- rock burst
- volcanic eruption
- nuclear explosion
- chemical explosion
- sonic boom
- mine collapse
- experimental explosion
- landslide
- acoustic noise
- collapse
- induced or triggered event
- not reported
- rock slide

### Event Type Distribution (filtering out earthquake)

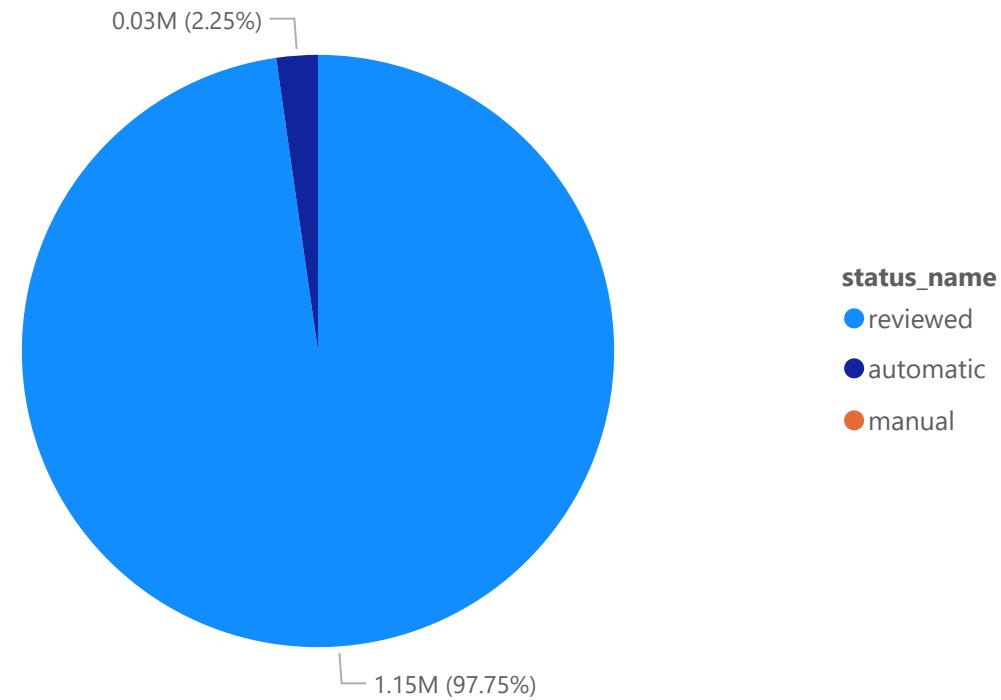


- event\_type\_name
- explosion
  - quarry blast
  - mining explosion
  - ice quake
  - other event
  - rock burst
  - volcanic eruption
  - nuclear explosion
  - chemical explosion
  - sonic boom
  - mine collapse

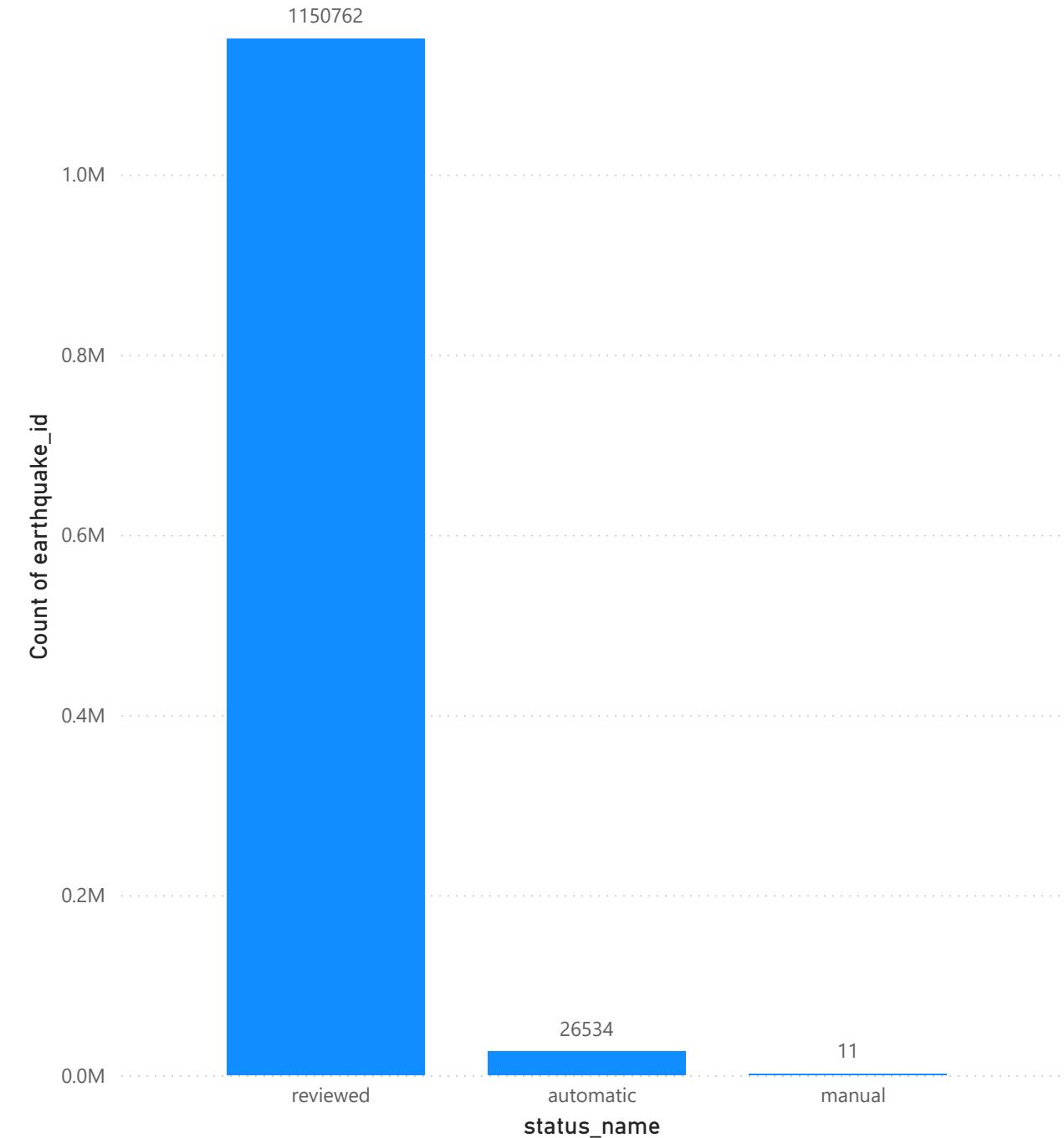
### Event Type Distribution and Their Counts



### Earthquake Status Breakdown

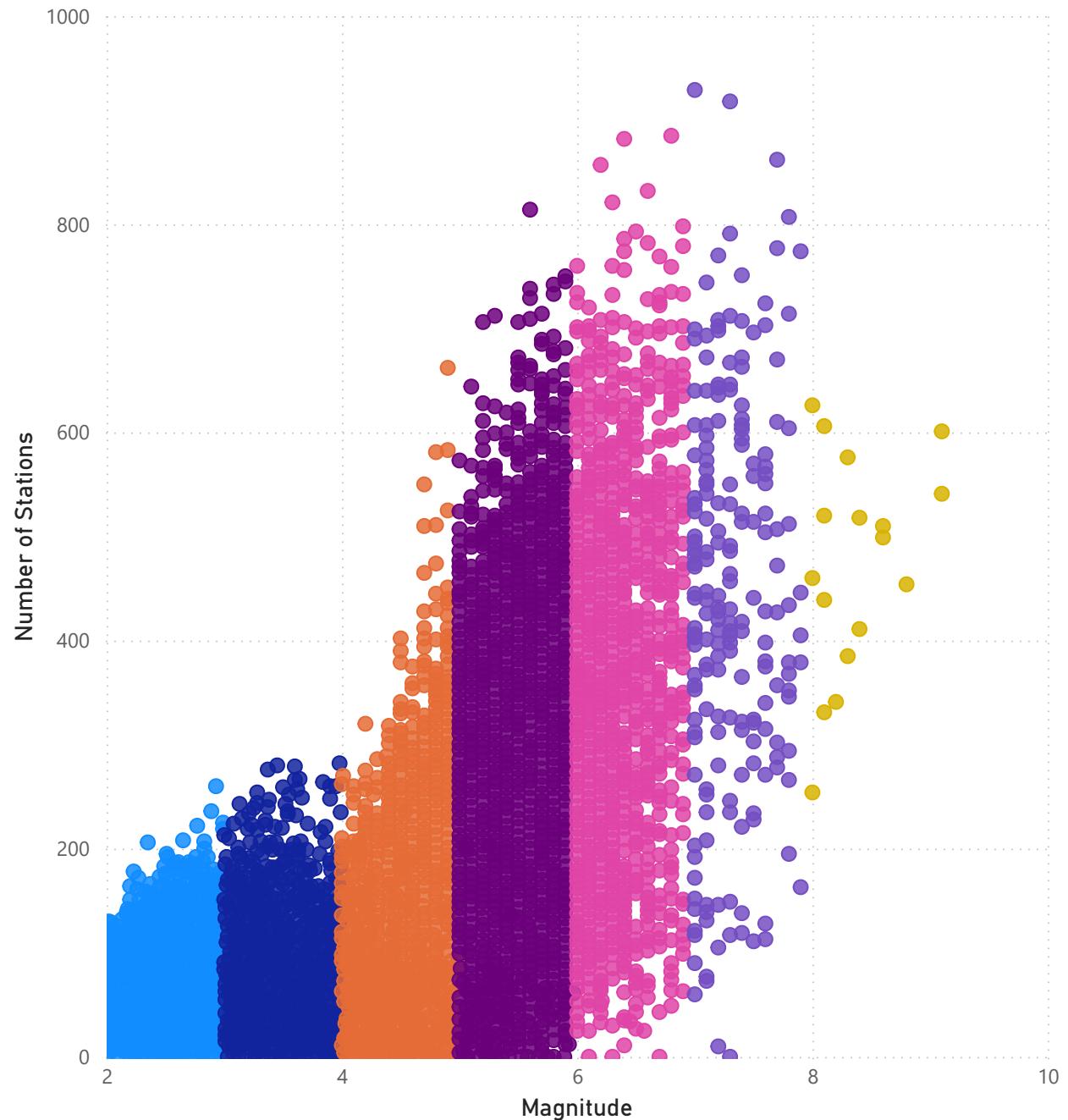


### Earthquake Status Breakdown



## Earthquake Magnitude vs. Number of Stations

magnitude\_group ● 0-2.9 (Mi... ● 3.0-3.9 (... ● 4.0-4.9 (... ● 5.0-5.9 (... ● 6.0-6.9 (... ● 7.0-7.9 (...



## depth\_km and azimuthal\_gap\_deg

400

300

200

100

0

azimuthal\_gap\_deg

| day_of_week | 0     | 1     | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 11    | 12    | 13    | 14    | 15    | 16    | 17    | 18    | 19    | 20    | 21    | 22    | 23    |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1           | 7058  | 7167  | 6995  | 7013  | 6942  | 6951  | 6822  | 7010  | 7074  | 7118  | 6989  | 7137  | 7073  | 7278  | 7143  | 7347  | 7128  | 6680  | 6794  | 6837  | 6979  | 7433  | 7298  | 7059  |
| 2           | 7042  | 6956  | 6960  | 7029  | 6874  | 6918  | 7013  | 7003  | 6969  | 6878  | 6632  | 6705  | 6626  | 7064  | 7240  | 6929  | 7045  | 6898  | 6980  | 7027  | 7181  | 7526  | 7477  | 7247  |
| 3           | 7171  | 7041  | 7029  | 6971  | 7249  | 6677  | 6802  | 6906  | 6907  | 6985  | 6809  | 6904  | 6883  | 7178  | 6954  | 7048  | 6925  | 7012  | 7013  | 7101  | 7204  | 7316  | 7153  | 7055  |
| 4           | 7062  | 6943  | 7132  | 7188  | 7224  | 6776  | 6699  | 6857  | 6765  | 7038  | 6987  | 6674  | 6645  | 6968  | 6978  | 6756  | 6795  | 6891  | 6782  | 7009  | 6994  | 7275  | 7165  | 7095  |
| 5           | 7389  | 7186  | 7137  | 7251  | 7211  | 6971  | 6997  | 7091  | 7070  | 6733  | 6659  | 6619  | 6604  | 6582  | 6639  | 7125  | 6928  | 7030  | 7204  | 7163  | 7237  | 7429  | 7423  | 7191  |
| 6           | 7004  | 6943  | 7044  | 7081  | 6888  | 6907  | 6746  | 6891  | 6955  | 7054  | 6919  | 6869  | 6770  | 6902  | 6544  | 6561  | 6709  | 7253  | 7286  | 7451  | 7250  | 7508  | 7367  | 6933  |
| 7           | 7141  | 6993  | 7010  | 6955  | 7045  | 6967  | 6986  | 7114  | 6931  | 7040  | 6937  | 7134  | 7105  | 6628  | 6709  | 6633  | 6744  | 7273  | 7321  | 7212  | 7211  | 7215  | 6886  | 6878  |
| Total       | 49867 | 49229 | 49307 | 49488 | 49433 | 48167 | 48065 | 48872 | 48671 | 48846 | 47932 | 48042 | 47706 | 48600 | 48207 | 48399 | 48274 | 49037 | 49380 | 49800 | 50056 | 51702 | 50769 | 49458 |

