

# TIDY DATA

# tidy data

each variable is a column;  
each column is a variable.

each observation is a row;  
each row is an observation.

each value is a cell;  
each cell is a single value.

| country     | year | cases | population |
|-------------|------|-------|------------|
| Afghanistan | 1999 | 745   | 19987071   |
| Afghanistan | 2000 | 2666  | 20595360   |
| Brazil      | 1999 | 37737 | 172006362  |
| Brazil      | 2000 | 80488 | 174504898  |

| country     | year | cases | population |
|-------------|------|-------|------------|
| Afghanistan | 1999 | 745   | 19987071   |
| Afghanistan | 2000 | 2666  | 20595360   |
| Brazil      | 1999 | 37737 | 172006362  |
| Brazil      | 2000 | 80488 | 174504898  |

variables

| country     | year | cases | population |
|-------------|------|-------|------------|
| Afghanistan | 1999 | 745   | 1937071    |
| Afghanistan | 2000 | 2666  | 2935360    |
| Brazil      | 1999 | 37737 | 17236362   |
| Brazil      | 2000 | 60488 | 17434898   |

observations

| country     | year | cases | population |
|-------------|------|-------|------------|
| Afghanistan | 1999 | 745   | 19987071   |
| Afghanistan | 2000 | 2666  | 20595360   |
| Brazil      | 1999 | 37737 | 172006362  |
| Brazil      | 2000 | 80488 | 174504898  |

values

| country     | year | type       | count     |
|-------------|------|------------|-----------|
| Afghanistan | 1999 | cases      | 745       |
| Afghanistan | 1999 | population | 19987071  |
| Afghanistan | 2000 | cases      | 2666      |
| Afghanistan | 2000 | population | 20595360  |
| Brazil      | 1999 | cases      | 37737     |
| Brazil      | 1999 | population | 172006362 |
| Brazil      | 2000 | cases      | 80488     |
| Brazil      | 2000 | population | 174504898 |

longer



| country     | year | type       | count     |
|-------------|------|------------|-----------|
| Afghanistan | 1999 | cases      | 745       |
| Afghanistan | 1999 | population | 19987071  |
| Afghanistan | 2000 | cases      | 2666      |
| Afghanistan | 2000 | population | 20595360  |
| Brazil      | 1999 | cases      | 37737     |
| Brazil      | 1999 | population | 172006362 |
| Brazil      | 2000 | cases      | 80488     |
| Brazil      | 2000 | population | 174504898 |

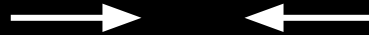


wider



| country     | cases_1999 | cases_2000 | pop_1999 | pop_2000  |
|-------------|------------|------------|----------|-----------|
| Afghanistan | 745        | 2666       | 19987071 | 20595360  |
| Brazil      | 37737      | 172006362  | 80488    | 174504898 |

compressed



| country     | year | rate              |
|-------------|------|-------------------|
| Afghanistan | 1999 | 745 / 19987071    |
| Afghanistan | 2000 | 2666 / 20595360   |
| Brazil      | 1999 | 37737 / 172006362 |
| Brazil      | 2000 | 80488 / 174504898 |

# tidy

| country     | year | cases | population |
|-------------|------|-------|------------|
| Afghanistan | 1999 | 745   | 19987071   |
| Afghanistan | 2000 | 2666  | 20595360   |
| Brazil      | 1999 | 37737 | 172006362  |
| Brazil      | 2000 | 80488 | 174504898  |

# tidy

| country     | year | cases | population |
|-------------|------|-------|------------|
| Afghanistan | 1999 | 745   | 19987071   |
| Afghanistan | 2000 | 2666  | 20595360   |
| Brazil      | 1999 | 37737 | 172006362  |
| Brazil      | 2000 | 80488 | 174504898  |

vector

{{ tidyrr }}

```
pivot_wider()
```

`pivot_longer()`