Tidy Data with tidyr

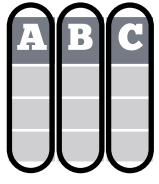
Tidy data is a way to organize tabular data. It provides a consistent data structure across packages.

A table is tidy if:

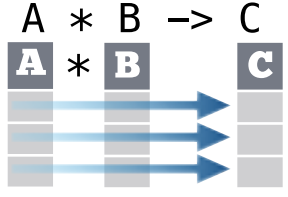
Each **variable** is in its own **column**

Each **observation**, or **case**, is in its own **row**

Tidy data:



Makes variables easy to access as vectors



Preserves cases during vectorized operations

Reshape Data - change the layout of values in a table

pivot_longer(data, cols, names_to = "name", names_prefix = NULL, names_sep = NULL, names_pattern = NULL, names_ptypes = list(), names_repair = "check_unique", values_to = "value", values_drop_na = FALSE, values_ptypes = list()**)**

table4a

country	1999	2000
A	0.7K	2K
B	37K	80K
C	212K	213K

→

country	year	cases
A	1999	0.7K
B	1999	37K
C	1999	212K
A	2000	2K
B	2000	80K
C	2000	213K

names value

pivot_longer(table4a, c(`1999`, `2000`), names_to = "year", values_to = "cases")

pivot_wider(id_cols = NULL, names_from = name, names_prefix = "", names_sep = "_", names_repair = "check_unique", values_from = value, values_fill = NULL, values_fn = NULL**)**

table2

country	year	type	count
A	1999	cases	0.7K
A	1999	pop	19M
A	2000	cases	2K
A	2000	pop	20M
B	1999	cases	37K
B	1999	pop	172M
B	2000	cases	80K
B	2000	pop	174M
C	1999	cases	212K
C	1999	pop	1T
C	2000	cases	213K
C	2000	pop	1T

names value

→

country	year	cases	pop
A	1999	0.7K	19M
A	2000	2K	20M
B	1999	37K	172M
B	2000	80K	174M
C	1999	212K	1T
C	2000	213K	1T

pivot_wider(table2, names_from = type, values_from = count)