

SHETH L.U.J AND SIR M.V. COLLEGE
SUBJECT NAME: DATA ANALYSIS WITH SAS/SPSS/R

Module 1 Practical 11

Aim: Reshaping data using pivot_longer()/pivot_wider() (R).

OUTPUT:

RStudio

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Source

Console Terminal Background Jobs

R 4.5.2 - C:/Users/mvluc/Downloads/

> setwd("C:/Users/mvluc/Downloads")

> library(dplyr)

Attaching package: 'dplyr'

The following objects are masked from 'package:stats':

filter, lag

The following objects are masked from 'package:base':

intersect, setdiff, setequal, union

> library(tidyverse)

> library(readr)

>

> df <- read_csv("Age-standardized suicide rates.csv") %>%

+ mutate(RecordID = row_number()) %>%

+ select(-RecordID, Country, sex, '2016', '2015', '2010', '2000')

Rows: 549 Columns: 6

— Column specification —

Delimiter: ","

chr (2): Country, sex

dbl (4): 2016, 2015, 2010, 2000

1 Use `spec()` to retrieve the full column specification for this data.

1 Specify the column types or set `show_col_types = FALSE` to quiet this message.

>

> df <- df %>%

+ mutate(across(c("2016", "2015", "2010", "2000"), as.numeric))

>

> print("--- 1. original wide data ---")

[1] "---- 1. Original Wide Data ----"

> print(head(df))

A tibble: 5 x 6

RecordID Country sex `2016` `2015` `2010` `2000`

1 1 Afghanistan Both sexes 6.4 6.6 7.4 8.1

2 2 Afghanistan Male 10.6 10.9 12.5 14.3

3 3 Afghanistan Female 2.1 2.1 2.1 1.7

4 4 Albania Both sexes 5.6 5.3 7.7 5.8

5 5 Albania Male 7 6.7 9.5 8.2

Environment History Connection

Project: (none)

166 MB

Global Environment

Data

Age.st... 550 obs. of 6 v...

df 549 obs. of 7 v...

long_df 2196 obs. of 5 ...

sex.pi... 732 obs. of 5 v...

wide_d... 549 obs. of 7 v...

Values

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RDdata

Rhistory

2 RestfullPractical.pdf

3 SOAP Practical.pdf

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Age-standardized suicide rates.csv

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SUBJECT NAME: DATA ANALYSIS WITH SAS/SPSS/R

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Console Terminal Background Jobs
R 4.5.2 - C:\Users\mvuc\Downloads
1 Afghanistan Both sexes 6.4 6.6 7.4 8.1
2 Afghanistan Male 10.6 10.9 12.5 14.3
3 Afghanistan Female 2.1 2.1 2.1 1.7
4 Albania Both sexes 5.6 5.3 7.7 5.8
5 Albania Male 7 6.7 9.5 8.2
6 Albania Female 4.3 4 6 3.6
> #
> #-----
> Long_df <- df %>%
+ pivot_longer(
+ cols = c("2016", "2015", "2010", "2000"),
+ names_to = "Year",
+ values_to = "Rate"
+) %>%
+ mutate(Year = as.integer(Year))
> print("--- 2. Long Format (pivot_longer) ---")
[1] "--- 2. Long Format (pivot_longer) ---"
> print(head(Long_df, 8))
A tibble: 8 x 5
RecordID Country Sex Year Rate
<int> <chr> <chr> <dbl>
1 1 Afghanistan Both sexes 2016 6.4
2 1 Afghanistan Both sexes 2015 6.6
3 1 Afghanistan Both sexes 2010 7.4
4 1 Afghanistan Both sexes 2000 8.1
5 2 Afghanistan Male 2016 10.6
6 2 Afghanistan Male 2015 10.9
7 2 Afghanistan Male 2010 12.5
8 2 Afghanistan Male 2000 14.3
> #
> #-----
> wide_df_original <- Long_df %>%
+ pivot_wider(
+ names_from = Year,
+ values_from = Rate
+)
> print("--- 3. wide Format (Back to original using pivot_wider) ---")
[1] "--- 3. wide Format (Back to original using pivot_wider) ---"
> print(head(wide_df_original))
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RStudio
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Console Terminal Background Jobs
R 4.5.2 - C:\Users\mvuc\Downloads
+ pivot_wider(
+ names_from = Year,
+ values_from = Rate
+)
> print("--- 3. wide Format (Back to original using pivot_wider) ---")
[1] "--- 3. wide Format (Back to original using pivot_wider) ---"
> print(head(wide_df_original))
A tibble: 6 x 7
RecordID Country sex `2016` `2015` `2010` `2000`
<int> <chr> <chr> <dbl> <dbl> <dbl> <dbl>
1 1 Afghanistan Both sexes 6.4 6.6 7.4 8.1
2 2 Afghanistan Both sexes 10.6 10.9 12.5 14.3
3 3 Afghanistan Female 2.1 2.1 2.1 1.7
4 4 Albania Both sexes 5.6 5.3 7.7 5.8
5 5 Albania Male 7 6.7 9.5 8.2
6 6 Albania Female 4.3 4 6 3.6
> #
> sex_pivot_df <- Long_df %>%
+ pivot_wider(
+ id_cols = c(Country, Year),
+ names_from = Sex,
+ values_from = Rate
+)
> print("--- 4. Sex Pivot (spreading 'sex') ---")
[1] "--- 4. Sex Pivot (spreading 'Sex') ---"
> print(head(sex_pivot_df))
A tibble: 6 x 5
Country Year `Both sexes` Male Female
<chr> <int> <dbl> <dbl>
1 Afghanistan 2016 6.4 10.6 2.1
2 Afghanistan 2015 6.6 10.9 2.1
3 Afghanistan 2010 7.4 12.5 2.1
4 Afghanistan 2000 8.1 14.3 1.7
5 Albania 2016 5.6 7 4.3
6 Albania 2015 5.3 6.7 4
> # write_csv(sex_pivot_df, "Suicide_Rates_Pivoted_by_Sex_R.csv")
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