

# How to Use pivot\_longer() in R

BY ZACH BOBBITT MARCH 23, 2022

The **pivot\_longer()** function from the **tidyr** package in R can be used to pivot a data frame from a wide format to a long format.

This function uses the following basic syntax:

```
library(tidyr)

df %>% pivot_longer(cols=c('var1', 'var2', ...),
                    names_to='col1_name',
                    values_to='col2_name')
```

where:

- **cols**: The names of the columns to pivot
- **names\_to**: The name for the new character column
- **values\_to**: The name for the new values column

The following example shows how to use this function in practice.

**Related:** [Long vs. Wide Data: What's the Difference?](#)

**Example:** [Use pivot\\_longer\(\) in R](#)

Suppose we have the following data frame in R that shows the number of points scored by various basketball players in different years:

```
#create data frame
df <- data.frame(player=c('A', 'B', 'C', 'D'),
                  year1=c(12, 15, 19, 19),
                  year2=c(22, 29, 18, 12))
```

```
#view data frame
df
```

	player	year1	year2
1	A	12	22
2	B	15	29
3	C	19	18
4	D	19	12

We can use the **pivot\_longer()** function to pivot this data frame into a long format:

```
library(tidyr)

#pivot the data frame into a long format
df %>% pivot_longer(cols=c('year1', 'year2'),
                    names_to='year',
                    values_to='points')
```

```
# A tibble: 8 x 3
  player year  points
  <fct> <fct>   <dbl>
1 A     year1     12
2 A     year2     22
3 B     year1     15
4 B     year2     29
5 C     year1     19
6 C     year2     18
7 D     year1     19
8 D     year2     12
```

Notice that the column names **year1** and **year2** are now used as values in a new column called “year” and the values from these original columns are placed into one new column called “points.”

The final result is a long data frame.

**Note:** You can find the complete documentation for the **pivot\_longer()** function [here](#).

## Additional Resources

The following tutorials explain how to use other common functions in the tidyr package in R:

[How to Use pivot\\_wider\(\) in R](#)

[How to Use Spread Function in R](#)

[How to Use Gather Function in R](#)

[How to Use Separate Function in R](#)

[How to Use the Unite Function in R](#)

POSTED IN PROGRAMMING •



### Zach Bobbitt

Hey there. My name is Zach Bobbitt. I have a Masters of Science degree in Applied Statistics and I’ve worked on machine learning algorithms for professional businesses in both healthcare and retail. I’m passionate about statistics, machine learning, and data visualization and I created Statology to be a resource for both students and teachers alike. My goal with this site is to help you learn statistics through using simple terms, plenty of real-world examples, and helpful illustrations.

**PREV**[How to Use pivot\\_wider\(\) in R](#)**NEXT**[How to Perform Listwise Deletion in R \(With Example\)](#)

Leave a Reply

Your email address will not be published.

Required fields are marked \*

Comment \*

Name \*

Email \*

POST COMMENT

SEARCH

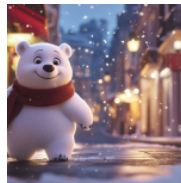


## ABOUT STATOLOGY



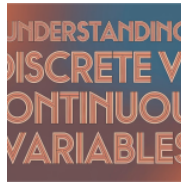
Statology makes learning statistics easy by explaining topics in simple and straightforward ways. Our team of writers have over 40 years of experience in the fields of Machine Learning, AI and Statistics. [Learn more about our team here.](#)

## FEATURED POSTS



How to Work with Temporal Data in Polars Using Date and Time Functions

October 31, 2024



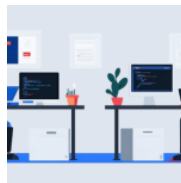
Understanding Variable Types in Statistics: Discrete vs. Continuous

October 31, 2024



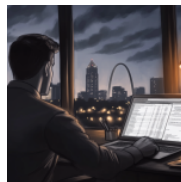
How to Perform Window Functions in Polars Using over()

October 30, 2024



Comparing Frequentist and Bayesian Approaches

October 30, 2024



Excel for Data Science: Advanced Techniques You Need to Know

October 30, 2024



Qualitative vs. Quantitative Variables: A Complete Guide

October 30, 2024

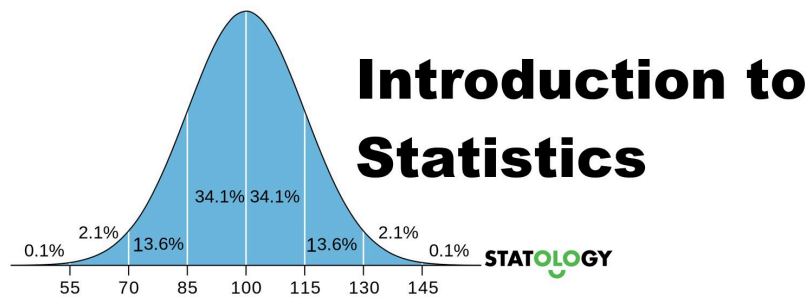
## STATOLOGY STUDY

**Statology Study** is the ultimate online statistics study guide that helps you study and practice all of the core concepts taught in any elementary statistics course and makes your life so much easier as a student.



## INTRODUCTION TO STATISTICS COURSE

**Introduction to Statistics** is our premier online video course that teaches you all of the topics covered in introductory statistics. **Get started** with our course today.



## YOU MIGHT ALSO LIKE

R: How to Use pivot\_longer() on All Columns

How to Reshape Data Between Wide and Long Format in R

How to Plot Multiple Lines in ggplot2 (With Example)

R: How to Use pivot\_wider() with Multiple Columns

How to Use pivot\_wider() in R

# How to Calculate Summary Statistics in R Using `dplyr`

© 2023 Statology | [Privacy Policy](#)