



Favorite Tidyr Function: `Pivot_wider()` & `longer`

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What is it used for?

- ★ Used when you want to rearrange dataframes (switch columns and rows) for easier usage in graphing and model-making and depending on which variable/relationships you want to look at.

country	1999	2000	2001	2002
Angola	800	750	925	1020
India	20100	25650	26800	27255
Mongolia	450	512	510	586

Pivot data longer

```
data %>%  
  pivot_longer(  
    cols = 1999:2002,  
    names_to = "year",  
    values_to = "cases"  
  )
```

country	year	cases
Angola	1999	800
Angola	2000	750
Angola	2001	925
Angola	2002	1020
India	1999	20100
India	2000	25650
India	2001	26800
India	2002	27255
Mongolia	1999	450
Mongolia	2000	512
Mongolia	2001	510
Mongolia	2002	586

country	year	cases
Angola	1999	800
Angola	2000	750
Angola	2001	925
Angola	2002	1020
India	1999	20100
India	2000	25650
India	2001	26800
India	2002	27255
Mongolia	1999	450
Mongolia	2000	512
Mongolia	2001	510
Mongolia	2002	586

country	1999	2000	2001	2002
Angola	800	750	925	1020
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Pivot data wider

```
data %>%  
  pivot_wider(  
    names_from = "year",  
    values_from = "cases"  
  )
```



Data: Palmers Penguins

1. Install “palmerpenguins” package
2. View data, decide which function we want to use → probably start with `pivot_wider`
 - a. (since numerical data in cells)
3. Separate out species and

	species	island	bill_length_mm	bill_depth_mm	flipper_length_mm	body_mass_g	sex	year
1	Adelie	Torgersen	39.1	18.7	181	3750	male	2007
2	Adelie	Torgersen	39.5	17.4	186	3800	female	2007
3	Adelie	Torgersen	40.3	18.0	195	3250	female	2007
4	Adelie	Torgersen	NA	NA	NA	NA	NA	2007
5	Adelie	Torgersen	36.7	19.3	193	3450	female	2007
6	Adelie	Torgersen	39.3	20.6	190	3650	male	2007
7	Adelie	Torgersen	38.9	17.8	181	3625	female	2007
8	Adelie	Torgersen	39.2	19.6	195	4675	male	2007
9	Adelie	Torgersen	34.1	18.1	193	3475	NA	2007
10	Adelie	Torgersen	42.0	20.2	190	4250	NA	2007
11	Adelie	Torgersen	37.8	17.1	186	3300	NA	2007
12	Adelie	Torgersen	37.8	17.3	180	3700	NA	2007



Done!

- ★ These functions are pretty straightforward to use, and will come in handy in a variety of analysis situations