

Jean pockets

Are women jean pockets ridiculously small? Let's look at the data!

The file `jean-pocket-measurements.csv` shows pocket measurements for 20 popular brands.

Four pairs of jeans from each brand were measured: men's and women's skinny and straight styles. All jeans were designated a 32-inch waistband.

The following measurements are included:

- `height_front`: maximum front pocket height (cm)
- `height_back`: maximum back pocket height (cm)
- `width_front`: maximum front pocket width (cm)
- `width_back`: maximum back pocket width (cm)

Overview of the dataframe

```
1 import pandas as pd
2 df = pd.read_csv('jean-pocket-measurements.csv')
3 df
```

	brand	style	gender	height_front	width_front	height_back	width_back
0	3fe5003e	skinny	women	14.5	16.5	15.0	13.7
1	3fe5003e	straight	women	14.5	16.0	15.5	13.0
2	790c6eab	skinny	women	13.0	14.5	15.5	13.5
3	790c6eab	straight	women	13.0	14.5	14.5	13.0
4	26aaf627	skinny	women	13.0	14.0	14.0	14.2
...
75	afb94ef0	straight	men	28.0	13.0	16.7	14.5
76	49d2b8a1	straight	women	15.0	16.0	14.5	13.5
77	49d2b8a1	skinny	women	14.5	16.0	14.0	14.0
78	49d2b8a1	straight	men	21.0	18.5	16.0	13.0
79	49d2b8a1	skinny	men	21.0	19.0	16.0	14.0

80 rows × 7 columns

Project Ideas

What is the average difference in pocket `height_front` between women's and men's jeans?

Is there a significant difference in pocket `height_front` between skinny and straight styles within the same gender?

How do back pocket sizes compare between women's and men's jeans?

What is the average difference in pocket `height_front` between women's and men's jeans?

```
What is the average difference in pocket height_front between women's and men's jeans?

> ✓
1 difference_height_front = df.groupby('gender')['height_front'].mean().diff().iloc[-1]
2 difference_height_front

[2]
... np.float64(-8.802500000000002)
```

Explanation of the code: So we tried getting the result using only one line of code. The step by step algorithm of the code is that, we get the average height_front of each gender using mean() and groupby(). Then we get the difference between the genders.

There are only two genders in the dataframe, when using diff(), it will return the result on the subtrahend (the second value). So we used iloc[-1] to return the difference which is around -8.8. Which basically inferred as 8.8cm as the average difference.

Is there a significant difference in pocket `height_front` between skinny and straight styles within the same gender?

```
1 # Grouping the dataframe by styles
2 new_group = df.groupby(['style', 'gender'])['height_front'].mean()
3 new_group.reset_index()

1 ✓ 0.0s
```

	style	gender	height_front
0	skinny	men	23.185
1	skinny	women	14.270
2	straight	men	23.075
3	straight	women	14.385

Between the two styles and gender, we can see that there is a significant difference between them. Almost the same values, women have significantly lower height front in both straight and skinny styles. Men's pockets are higher and deeper on average because of a long-standing cultural emphasis on women's fashion prioritizing aesthetics over functionality, a historical tradition of women carrying bags, and the association of pockets with masculinity. While the specific height difference may vary, the overall trend shows men's pockets are designed to be more useful for carrying objects, a design feature that has been historically limited or absent in women's clothing

How do back pocket sizes compare between women's and men's jeans?

```
1 # Calculate the area of the back pockets
2 df['back_pocket_area'] = df['width_back'] * df['height_back']
3
4 # Calculate mean pocket height for each gender
5 mean_backpocket = df.groupby('gender')['back_pocket_area'].mean()
6 mean_backpocket.reset_index(name='mean_backpocket_avg')
```

✓ 0.0s

	gender	mean_backpocket_avg
0	men	219.70875
1	women	201.82125

Based on the quick solution, men's back pocket is at least 18cm larger than women's back pocket. According to a quick search, men's back pockets are larger due to patriarchal design principles in the fashion industry, prioritizing a figure-hugging silhouette for women over functionality, which became standard after World War II. This decision often leads to women carrying purses to hold items, sometimes seen as a way for the industry to sell more accessories. Additionally, the design may be influenced by the historical expectation for men to carry items and women to carry a purse.