

Python Permutation Median-Difference Workflow

Standalone verified Python analysis

Test: Python Permutation Median-Difference Workflow

Design: A reproducible Python randomization test for the MS-minus-GP difference in median absences.

Variables: absences, school

Null hypothesis: School labels are exchangeable and the median difference is zero.

Formula: $p = [1 + \text{count}(|\Delta_{\text{median}}| \geq |\Delta_{\text{median}}|)] / (B + 1)$

Source rows: 649

Calculated metrics:

median_difference_ms_minus_gp: 0.0

two_sided_permutation_p: 1.0

permutations: 3000

seed: 20260716

Independent reference values:

median_difference_ms_minus_gp: 0.0

two_sided_permutation_p: 1.0

permutations: 3000

seed: 20260716

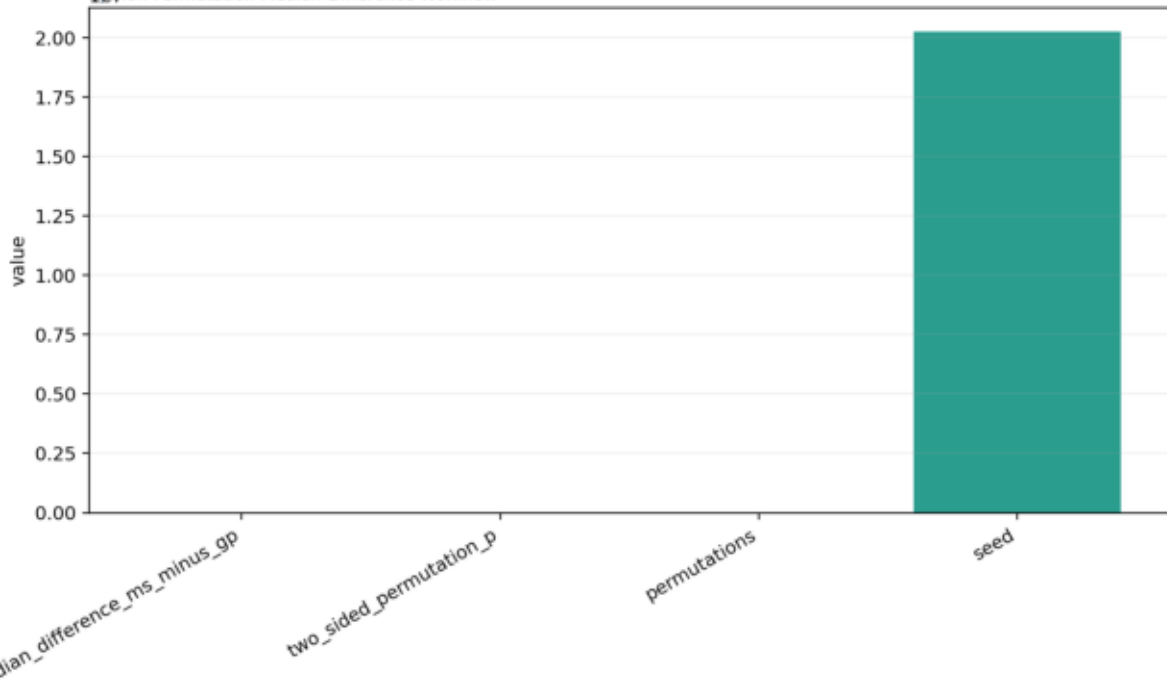
Interpretation:

School labels are shuffled while both original group sizes remain fixed.

The two-sided plus-one Monte Carlo p-value is 1.

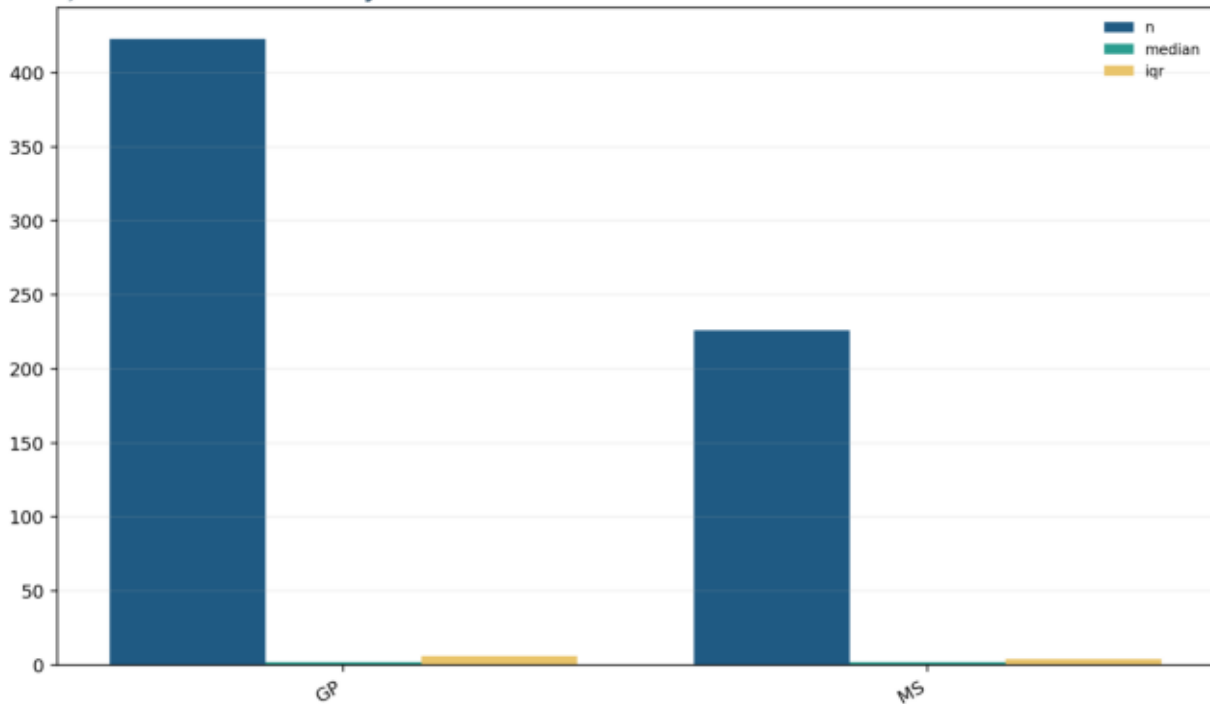
Primary Metrics

Test: Permutation Median-Difference Workflow

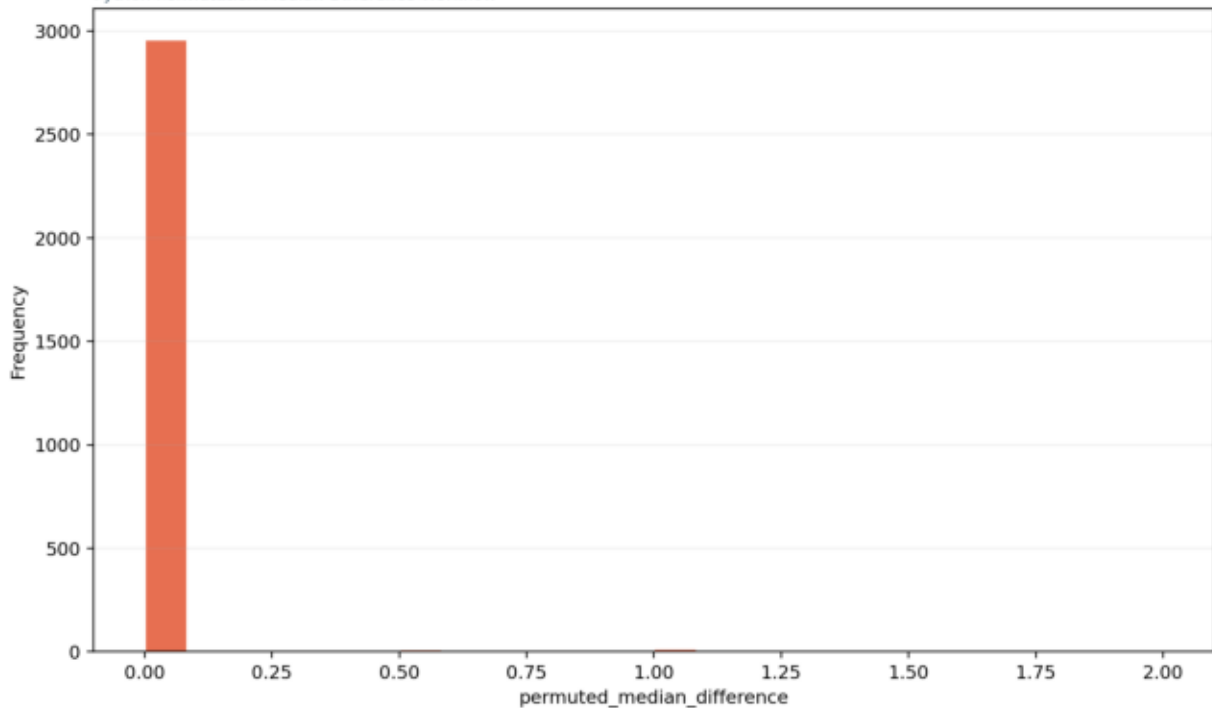


School Absence Summary

Workflow

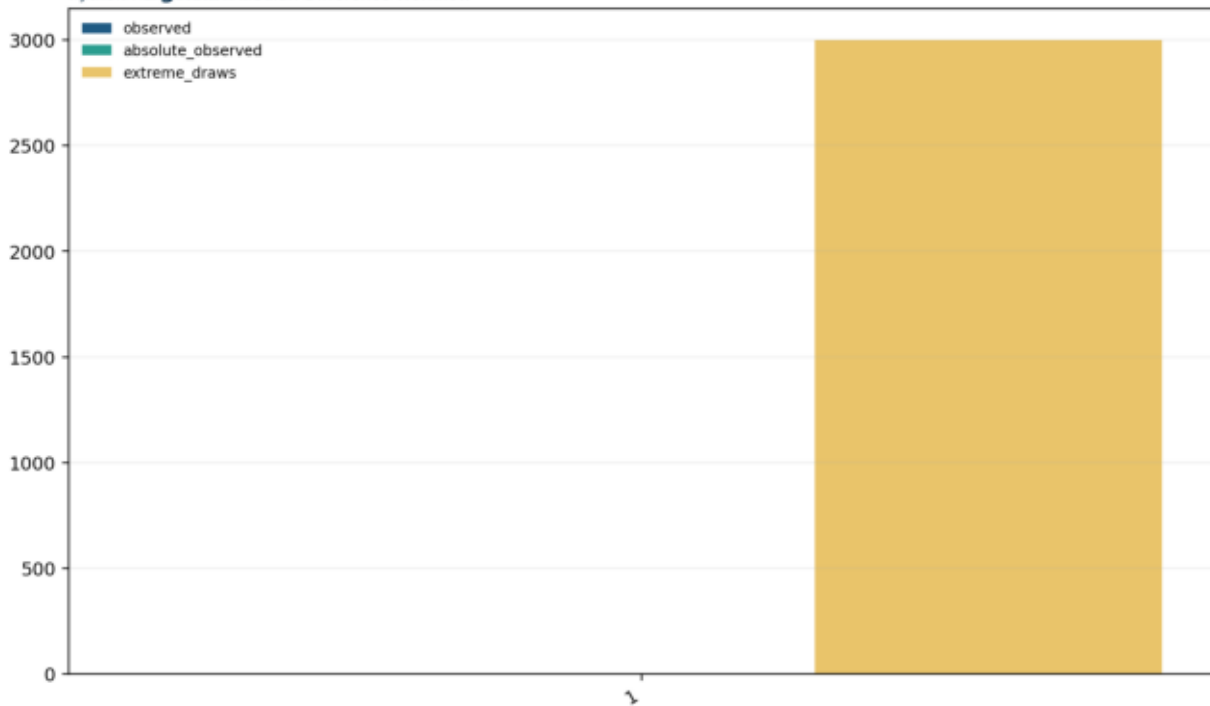


Permutation Null Distribution

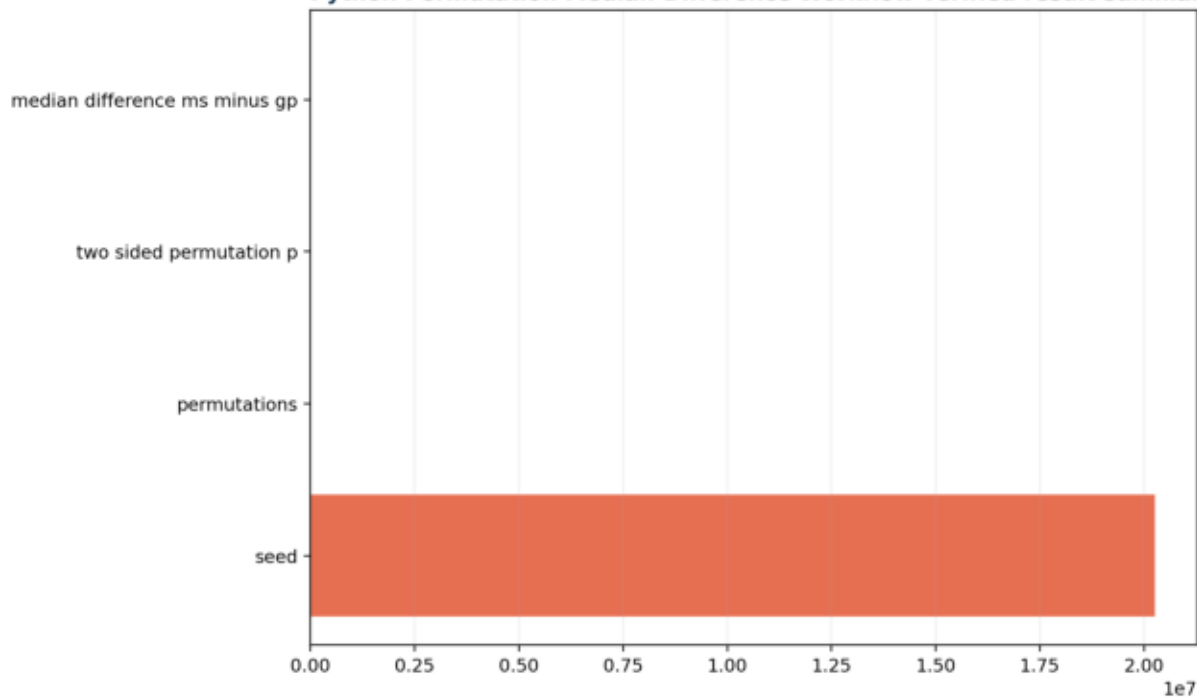


Tail Diagnostics

Typical Median-Difference Workflow



Python Permutation Median-Difference Workflow verified result summary



Primary Metrics

metric	value
median_difference_ms_minus_gp	0
two_sided_permutation_p	1
permutations	3000
seed	2.02607e+07

School Absence Summary

school	n	median	iqr
GP	423	2	6
MS	226	2	4

Permutation Null Distribution

permuted_median_difference
0
0
0
0
0
0
0
0
0
0
0
0
0
0
0
0
0
0
0
0
0
0
0
0
0
2
0
1

Tail Diagnostics

observed	absolute_observed	extreme_draws
0	0	3000