

pwmean postestimation — Postestimation tools for pwmean

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Postestimation commands

The following postestimation commands are available after `pwmean`:

| Command | Description |
|------------------------|-----------------------------------------------------------------------------------------------------|
| <code>estat vce</code> | variance–covariance matrix of the estimators (VCE) |
| <code>estimates</code> | cataloging estimation results |
| <code>etable</code> | table of estimation results |
| <code>lincom</code> | point estimates, standard errors, testing, and inference for linear combinations of coefficients |
| <code>nlcom</code> | point estimates, standard errors, testing, and inference for nonlinear combinations of coefficients |
| <code>test</code> | Wald tests of simple and composite linear hypotheses |
| <code>testnl</code> | Wald tests of nonlinear hypotheses |

Remarks and examples

[stata.com](#)

In *Pairwise differences of means* of [R] `pwmean`, we computed all pairwise differences in mean wheat yields for five fertilizers.

```
. use https://www.stata-press.com/data/r18/yield
(Artificial wheat yield dataset)
. pwmean yield, over(fertilizer)
Pairwise comparisons of means with equal variances
Over: fertilizer
```

| yield | Contrast | Std. err. | Unadjusted [95% conf. interval] | |
|----------------------|-----------|-----------|------------------------------------|-----------|
| fertilizer | | | | |
| 10-08-22 vs 10-10-10 | 3.62272 | 1.589997 | .4869212 | 6.758518 |
| 16-04-08 vs 10-10-10 | .4906299 | 1.589997 | -2.645169 | 3.626428 |
| 18-24-06 vs 10-10-10 | 4.922803 | 1.589997 | 1.787005 | 8.058602 |
| 29-03-04 vs 10-10-10 | -1.238328 | 1.589997 | -4.374127 | 1.89747 |
| 16-04-08 vs 10-08-22 | -3.13209 | 1.589997 | -6.267889 | .0037086 |
| 18-24-06 vs 10-08-22 | 1.300083 | 1.589997 | -1.835715 | 4.435882 |
| 29-03-04 vs 10-08-22 | -4.861048 | 1.589997 | -7.996847 | -1.725249 |
| 18-24-06 vs 16-04-08 | 4.432173 | 1.589997 | 1.296375 | 7.567972 |
| 29-03-04 vs 16-04-08 | -1.728958 | 1.589997 | -4.864757 | 1.406841 |
| 29-03-04 vs 18-24-06 | -6.161132 | 1.589997 | -9.29693 | -3.025333 |

After `pwmean`, we can use `testnl` to test whether the improvement in mean wheat yield when using fertilizer 18-24-06 instead of fertilizer 29-03-04 is significantly different from 10%.

```
. testnl (_b[4.fertilizer] - _b[5.fertilizer])/_b[5.fertilizer] = 0.1
(1) (_b[4.fertilizer] - _b[5.fertilizer])/_b[5.fertilizer] = 0.1
      chi2(1) =          1.57
      Prob > chi2 =          0.2106
```

The improvement is not significantly different from 10%.

Also see

[R] **pwmean** — Pairwise comparisons of means

[U] **20 Estimation and postestimation commands**

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