

testnl — Wald test of nonlinear hypotheses

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Description

`testnl` is a postestimation command for use after `sem`, `gsem`, and other Stata estimation commands.

`testnl` performs the Wald test of the nonlinear hypothesis or hypotheses. In the case of `sem` and `gsem`, you must use the `_b[]` coefficient notation.

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Statistics > SEM (structural equation modeling) > Testing and CIs > Wald tests of nonlinear hypotheses

Syntax

```
testnl exp = exp [= ...] [, options]
```

```
testnl (exp = exp [= ...]) [(exp = exp [= ...]) ...] [, options]
```

Options

See [Options](#) in [R] `testnl`.

Remarks and examples

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`testnl` works in the metric of SEM, which is to say path coefficients, variances, and covariances. If you want to frame your tests in terms of standardized coefficients and correlations and you fit the model with `sem`, not `gsem`, then prefix `testnl` with `estat stdize::`; see [SEM] [estat stdize](#).

□ Technical note

`estat stdize:` is unnecessary because, with `testnl`, everywhere you wanted a standardized coefficient or correlation, you could just type the formula. If you did that, you would get the same answer except for numerical precision. In this case, the answer produced with the `estat stdize:` prefix will be a little more accurate because `estat stdize:` is able to substitute an analytic derivative in one part of the calculation where `testnl`, doing the whole thing itself, would be forced to use a numeric derivative.

□

Stored results

See *Stored results* in [R] **testnl**.

Also see

[R] **testnl** — Test nonlinear hypotheses after estimation

[SEM] **test** — Wald test of linear hypotheses

[SEM] **lrtest** — Likelihood-ratio test of linear hypothesis

[SEM] **estat stdize** — Test standardized parameters

[SEM] **estat eqtest** — Equation-level tests that all coefficients are zero

[SEM] **nlcom** — Nonlinear combinations of parameters