Example 21 — Group-level goodness of fit

Description Remarks and examples Also see

Description

Below we demonstrate the `estat ggof` command, which may be used after `sem` with the `group()` option. `estat ggof` displays group-by-group goodness-of-fit statistics.

We pick up where [SEM] **Example 20** left off:

```
. use https://www.stata-press.com/data/r19/sem_2fmmby
. sem (Peer -> peerrel1 peerrel2 peerrel3 peerrel4)   ///
      (Par  -> parrel1  parrel2  parrel3  parrel4), group(grade)
```

Remarks and examples

```
. estat ggof
Group-level fit statistics
```

	N	SRMR	CD
grade			
1	134	0.063	0.969
2	251	0.047	0.955

```
Note: Group-level chi-squared statistics
      are not reported because of
      constraints between groups.
```

Notes:

1. Reported are the goodness-of-fit tests that `estat gof, stats(residuals)` would report. The difference is that they are reported for each group rather than overall.
2. If the fit is good, then SRMR (standardized root mean squared residual) will be close to 0 and CD (the coefficient of determination) will be near 1.

It is also appropriate to run `estat gof` to obtain overall results:

```
. estat gof, stats(residuals)
```

Fit statistic	Value	Description
Size of residuals		
SRMR	0.056	Standardized root mean squared residual
CD	0.958	Coefficient of determination

Also see

[SEM] **Example 20** — Two-factor measurement model by group

[SEM] **Example 4** — Goodness-of-fit statistics

[SEM] **estat ggof** — Group-level goodness-of-fit statistics