sem ssd options — Options for use with summary statistics data

Description Syntax Options Remarks and examples Also see

## Description

Data are sometimes available in summary statistics form only. These summary statistics include means, standard deviations or variances, and correlations or covariances. These summary statistics can be used by sem in place of the underlying raw data.

## Syntax

sem paths ..., ... ssd\_options

ssd_options	Description
<u>sel</u> ect() <u>forcecor</u> relations	alternative to if <i>exp</i> for SSD allow groups and pooling of SSD correlations

# Options

select() is an alternative to if exp when you are using summary statistics data (SSD). Where you might
usually type

```
. sem ... if agegrp==1 | agegrp==3 | agegrp==5, ...
```

with SSD in memory, you type

.sem ..., ... select(135)

See [SEM] sem option select() and [SEM] Intro 11.

forcecorrelations tells sem that it may make calculations that would usually be considered suspicious with SSD that contain only a subset of means, variances (standard deviations), and covariances (correlations). Do not specify this option unless you appreciate the statistical issues that we are about to discuss. There are two cases where forcecorrelations is relevant.

In the first case, sem is unwilling to produce group() estimates if one or more (usually all) of the groups have correlations only defined. You can override that by specifying forcecorrelations, and sem will assume unit variances for the group or groups that have correlations only. Doing this is suspect unless you make ginvariant() all parameters that are dependent on covariances or unless you truly know that the variances are indeed 1.

In the second case, sem is unwilling to pool across groups unless you have provided means and covariances (or means and correlations and standard deviations or variances). Without that information, should the need for pooling arise, sem issues an error message. The forcecorrelations option specifies that sem ignore its rule and pool correlation matrices, treating correlations as if they were covariances when variances are not defined and treating means as if they were 0 when means are not defined. The only justification for making the calculation in this way is that variances truly are 1 and means truly are 0. Understand that there is nothing wrong with using pure correlation data, or covariance data without the means, so long as you fit models for individual groups. Doing anything across groups basically requires that sem have the covariance and mean information.

### **Remarks and examples**

See [SEM] Intro 11.

#### Also see

- [SEM] sem Structural equation model estimation command
- [SEM] Intro 11 Fitting models with summary statistics data (sem only)
- [SEM] **ssd** Making summary statistics data (sem only)

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