

## Description

gsem can fit combined models across subgroups of the data while allowing some parameters to vary and constraining others to be equal across subgroups. These subgroups could be males and females, age category, and the like.

gsem performs such estimation when the group (*varname*) option is specified. The ginvariant (*pclass-name*) option specifies which parameters are to be constrained to be equal across the groups.

## Syntax

gsem *paths* ..., ... *group\_options*

<i>group_options</i>	Description
group( <i>varname</i> )	fit model for different groups
ginvariant( <i>pclassname</i> )	specify parameters that are equal across groups

<i>pclassname</i>	Description
cons	intercepts and cutpoints
coef	fixed coefficients
loading	latent variable coefficients
errvar	covariances of errors
scale	scaling parameters
means	means of exogenous variables
covex	covariances of exogenous latent variables
all	all the above
none	none of the above

ginvariant(cons coef loading) is the default if ginvariant() is not specified.

## Options

group(*varname*) specifies that the model be fit as described above. *varname* specifies the name of a numeric variable that records the group to which the observation belongs.

ginvariant(*pclassname*) specifies which classes of parameters of the model are to be constrained to be equal across groups. The classes are defined above. The default is ginvariant(cons coef loading) if the option is not specified.

## Remarks and examples

See [SEM] [Intro 6](#) and [SEM] [Example 49g](#).

## Also see

[SEM] [gsem](#) — Generalized structural equation model estimation command

[SEM] [Intro 6](#) — Comparing groups

[SEM] [Example 49g](#) — Multiple-group Weibull survival model

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