

**gsem lclass options** — Fitting models with latent classes
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## Description

`gsem` can fit models with categorical latent variables having specified numbers of latent classes. Some parameters can vary across classes while others are constrained to be equal across classes.

`gsem` performs such estimation when the `lclass()` option is specified. The `lcinvariant(pclassname)` option specifies which parameters are to be constrained to be equal across the latent classes.

## Syntax

```
gsem paths ..., ... lclass(lcname # [ , base(#)]) lcinvariant(pclassname)
```

<i>lclass_options</i>	Description
<code>lclass()</code>	fit model with latent classes
<code><u>lcinvariant</u>(<i>pclassname</i>)</code>	specify parameters that are equal across latent classes

<i>pclassname</i>	Description
<code>cons</code>	intercepts and cutpoints
<code>coef</code>	fixed coefficients
<code><u>errvar</u></code>	covariances of errors
<code>scale</code>	scaling parameters
<code>all</code>	all the above
<code>none</code>	none of the above

`lcinvariant(errvar scale)` is the default if `lcinvariant()` is not specified.

## Options

`lclass(lcname # [ , base(#)])` specifies that the model be fit as described above.

*lcname* specifies the name of a categorical latent variable, and # specifies the number of latent classes. The latent classes are the contiguous integers starting with 1 and ending with #.

`base(#)` specifies the class of *lcname* to be treated as the base class. The default is `base(1)`.

`lcinvariant(pclassname)` specifies which classes of parameters of the model are to be constrained to be equal across the latent classes. The classes are defined above. The default is `lcinvariant(errvar scale)`.

## Remarks and examples

See [\[SEM\] intro 2](#), and see [\[SEM\] example 50g](#), [\[SEM\] example 51g](#), and [\[SEM\] example 52g](#).

## Also see

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

[\[SEM\] intro 2](#) — Learning the language: Path diagrams and command language

[\[SEM\] example 50g](#) — Latent class model

[\[SEM\] example 51g](#) — Latent class goodness-of-fit statistics

[\[SEM\] example 52g](#) — Latent profile model