

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

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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