

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

lname 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 *lname* 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

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