
9 Error and Warning Message Reference

Error messages (denoted with `ERROR` in the Blimp output) are issued when problems arise due to computational or syntactical issues and cause Blimp to stop running and exit. In contrast, warning messages (denoted with `WARNING` in the Blimp output) will only warn the user that some options may have been adjusted, but Blimp will continue to run. The following sections detail Blimp error and warning messages and possible resolutions for each error.

Error Messages

```
ERROR: Unable to open syntax file.
```

Blimp was unable to open the Blimp syntax file. This usually indicates that the file path supplied to the Blimp cannot be found.

```
ERROR: Unable to expand syntax. The prefixes for
      c1 and x3 do not match.
```

A variable list that uses a dash to indicate a sequence of variables on the `VARIABLE`, `NOMINAL`, `ORDINAL`, or `MODEL` commands is incorrectly specified, most likely because the alphanumeric prefixes provided do not match. In the example above, the variable list `c1-x3` would generate the error.

```
ERROR: Unable to expand syntax. The suffixes for
      x1 and x3a do not match.
```

A variable list that uses a dash to indicate a sequence of variables on the `VARIABLE`, `NOMINAL`, `ORDINAL`, or `MODEL` commands is incorrectly specified, most likely because the numeric suffixes provided do not match. In the example above, the variable list `x1-x3a` would generate the error.

```
ERROR: Must specify SIMULATE command before specifying data command.
```

The `SIMULATE` command must be specified before the `DATA` command in the Blimp syntax file. For more information on how to properly set up a simulation input see Chapter 8.

```
ERROR: Must specify more than 0 replications.
```

Blimp read the number of replications specified in the `SIMULATE` command as 0. Check input to verify that the number is greater than 0. For more information on how to properly set up a simulation input see Chapter 8.

```
ERROR: Must specify more than 0 processors.
```

Blimp read the number of processors to use in the `SIMULATE` command as 0. Check input to verify that the number is greater than 0. For more information on how to properly set up a simulation input see Chapter 8.

```
ERROR: Chains command not currently available in simulation mode.
```

The `CHAINS` command was used with simulation mode. Only single chains are allowed with internal simulations. To specify multiple chains in a simulation you must run an external simulation. For more information on external simulations see Chapter 8.

```
ERROR: Simulation mode already specified, psr command not available.
```

Currently the `psr` keyword is not available in simulation mode. To obtain PSR factors in a simulation you must run an external simulation. For more information on external simulations see Chapter 8.

```
ERROR: Missing a DATA, VARIABLES, or MODEL command.
```

Either the `DATA`, `VARIABLES`, and/or `MODEL` are/is missing or not read correctly by Blimp. Double check that all lines end in a semicolon (`;`). For more information on specifying a Blimp syntax file see Chapter 3.

```
ERROR: Missing imputation parameters.
```

Either the BURN, THIN, MISSING, SEED, and/or NIMPS command(s) are/is missing or not read correctly by Blimp. Double check that all lines end in a semicolon (;). For more information on specifying a Blimp syntax file see Chapter 3.

```
ERROR: No output file given.
```

The OUTFILE command is missing or not read correctly by Blimp. Double check that all lines end in a semicolon (;). For more information on specifying a Blimp syntax file see Chapter 3.

```
ERROR: Please place ONE asterisk (*) in OUTFILE command.
```

Blimp did not detect an asterisk (*) in the OUTFILE command or Blimp detected more than one asterisk. This is required when the SIMULATE command is used or the separate keyword is specified in the OPTIONS command. For more information on specifying a Blimp syntax file see Chapter 3.

```
ERROR: More processors than simulation files requested.
```

More processors were requested than the number of replications specified in the SIMULATE command. For more information on setting up a simulation see Chapter 8.

```
ERROR: More processors than chains requested.
```

More processors were requested than the number of chains specified in the CHAINS command. For more information on specifying a Blimp syntax file see Chapter 3.

```
ERROR: More chains than imputations requested.
```

More chains than the number of imputations were requested in the syntax file. For more information on specifying a Blimp syntax file see Chapter 3.

```
ERROR: Requested seed of --- must be greater than 0.
```

All seeds must be positive integers.

```
ERROR: DATA command and OUTFILE command have the same file path.
```

The file path specified in the DATA command and in the OUTFILE command are the same. These two paths must differ.

```
ERROR: File /MY/FILE/PATH cannot be found.
```

The file specified in the DATA command (labeled as ‘/MY/FILE/PATH’ in the example error message) does not exist. Check to see if the line is terminated by a semicolon (;).

```
ERROR: File /MY/FILE/PATH cannot be created.  
Please check that the file path is correct.
```

The file specified in the OUTFILE command (labeled as ‘/MY/FILE/PATH’ in the example error message) cannot be created. Check to see if the line is terminated by a semicolon (;).

```
ERROR: Currently no more than two identifier variables are supported.
```

Blimp has interpreted more than two identifier variables in the MODEL command. Blimp currently only allows a maximum of three-levels (i.e., two identifier variables).

```
ERROR: Variable X1 has only one observed category.  
Ordinal and nominal variables need  
a minimum of two observed categories.
```

The variable ‘X1’ (where ‘X1’ could be any variable name) was listed on the ORDINAL or NOMINAL command, but has only one observed category. Blimp requires more than one category to be observed in order to impute the variable.

```
ERROR: Variable: X1 not in data.
```

The variable ‘X1’ (where ‘X1’ could be any variable name) was listed in the MODEL command and not in the VARIABLES command.

```
ERROR: Identifier variable: SUBJID not in data.
```

The identifier variable SUBJID (where SUBJID could be any identifier variable name) listed prior to the tilde in the MODEL command does not appear in the VARIABLES command.

```
ERROR: Identifier variables have the same number of clusters.  
Cross-classified models are currently unsupported.
```

Blimp has detected the identifier variables have the same number of clusters. At this time, Blimp does not support cross-classified models.

```
ERROR: Identifier's appear to be a cross-classified model.  
Cross-classified models are currently unsupported.
```

Blimp has detected the identifier variables do not follow the proper nesting structure. At this time, Blimp does not support cross-classified models.

```
ERROR: Please place ONE asterisk (*) in DATA command.
```

More than one asterisk (*) was placed in the file path given in the DATA command. This can also be triggered when no asterisk is found. An asterisk is required for the SIMULATE command.

```
ERROR: Failed to read the data in,  
please use a comma separated file  
or space separated file.
```

Blimp was unable to read the data. This could be due to the file path specified not being correct or due to the file type not being recognized.

```
ERROR: The number of variables listed does not equal data columns.
```

The number of variables listed in the VARIABLES command does not equal the number of columns the data matrix read in by Blimp.

```
ERROR: No missing variables in MODEL command.
```

There were no missing variables listed in the MODEL command.

```
ERROR: A matrix is numerically positive indefinite
  Either:
    (1) Try another seed.
    (2) Specify fewer random effects.
    (3) Specify fewer variables in model.
```

During the imputation process, a matrix became numerically positive indefinite and Blimp was unable to continue because of an inversion problem. It is recommended to first try another seed. If this continues, then try to specify fewer random effects. Finally, try specifying fewer variables.

```
Chain i failed with status 2.
```

Chain *i*, where *i* is a number, had a matrix become computationally positive indefinite. If this is the case, it is recommended to first try another seed. If this continues, then try to specify fewer random effects. Finally, try specifying fewer variables.

```
Replication i return an error code of 1.
```

During the simulation, the replication *i*, where *i* is a number, had an error and returned the code of error code of 1. An error code of 1 indicates a failure to load the data set.

```
Replication i return an error code of 2.
```

During the simulation, the replication *i*, where *i* is a number, had an error and returned the code of error code of 2. An error code of 2 indicates that a matrix became numerically positive indefinite. If this is the case, it is recommended to first try another seed.

Warning Messages

```
WARNING: Overriding OUTFILE command in input.
```

An argument from the command-line is overriding the file path given in the `OUTFILE` command (e.g., when implementing an external simulation). If this is not desired, see Chapter 4.

WARNING: Overriding SEED command in input.

An argument from the command-line is overriding the value given in the SEED command (e.g., when implementing an external simulation). If this is not desired, see Chapter 4.

WARNING: Overriding DATA command in input.

An argument from the command-line is overriding the file path given in the DATA command (e.g., when implementing an external simulation). If this is not desired, see Chapter 4.

WARNING: Entering simulation mode.

Simulation mode was enabled with a SIMULATE command.

WARNING: Separate data files are not available for simulation mode.

The separate keyword was specified with the SIMULATE command. The SIMULATE command will override the separate keyword.

WARNING: Zero or less imputations requested. Defaulting to one imputation.

The number of imputations requested were read in to be zero or a negative number. Blimp is setting the number of imputations to one.

WARNING: Less than zero thinning interval requested. Defaulting to zero.

The thinning interval must be greater than or equal to zero. Blimp is defaulting to zero.

WARNING: Less than zero burn-in requested. Defaulting to zero.

The burn-in interval must be greater than or equal to zero. Blimp is defaulting to zero.

```
WARNING: Maximum number of processors allowed is 4.  
        This is based on your hardware specifications.  
        Setting the processors to 4.
```

Blimp will not allow more processors requested than number of physical CPU cores in the computer (note in the above warning 4 may change depending on the hardware). Blimp will default to the maximum number of allowed processors.

```
WARNING: Multithreading not enabled.  
        Setting the processors to 1.
```

The distribution of Blimp being used does not have multithreading enabled. Therefore, Blimp is setting itself to one processor.

```
WARNING: A minimum of 100 burn-in needed for PSR.  
        Setting burn-in to 100.
```

The `psr` keyword was specified in the `OPTIONS` command and the burn-in requested was less than 100. Blimp prints the PSR statistic for every 100 burn-in iterations. Therefore, Blimp is defaulting to a minimum of 100 burn-in iterations.

```
NOTE: Setting number of imputations to 2  
      to match number of chains requested.
```

More chains were requested than imputations. A minimum of one imputation per chain must be requested. Blimp is defaulting the number of imputations to the number of chains requested.

```
WARNING: Multithreading not enabled.  
        Reverting to single thread simulation.
```

The distribution of Blimp being used does not have multithreading enabled. Therefore, Blimp is using a single-threaded simulation.

```
WARNING: Variable "X1" in ORDINAL command was not used.  
        Cannot be found in VARIABLE command.
```

The variable 'X1' (note this will be the name of variable causing the warning message) was used in the `ORDINAL` command, but is not listed in the `VARIABLE` command. It will be ignored.

```
WARNING: Ignoring variable "X1" in ORDINAL command is not in MODEL command.  
        Cannot be found in MODEL statement.
```

The variable 'X1' (note this will be the name of variable causing the warning message) was used in the ORDINAL command, but is not listed in the MODEL command. It will be left out of the model and ignored.

```
WARNING: Variable "X1" in NOMINAL command was not used.  
        Cannot be found in VARIABLE command.
```

The variable 'X1' (note this will be the name of variable causing the warning message) was used in the NOMINAL command, but is not listed in the VARIABLE command. It will be ignored.

```
WARNING: Ignoring variable "X1" in NOMINAL command is not in MODEL command.  
        Cannot be found in MODEL statement.
```

The variable 'X1' (note this will be the name of variable causing the warning message) was used in the NOMINAL command, but is not listed in the MODEL command. It will be left out of the model and ignored.

```
WARNING: No identifier variable specified.  
        Defaulting to single-level imputation.
```

Blimp did not interpret an identifier variable in the MODEL command. Blimp will treat the file as a single-level imputation. If this is desired, ignore this warning. Otherwise, check the syntax's MODEL command. See Chapter 3 on specifying a MODEL command.

```
WARNING: 5 observations have all variables in the imputation  
        model missing. They have been dropped from data set.
```

Blimp has dropped 5 observations, where 5 is the number specific to the data set. Blimp will not impute variables with missing observations on all variables in the MODEL command.

WARNING: Excluding the following variables as predictors at the listed level.
Variable "X1" excluded from level 2 imputation.

These variables are either orthogonal to all variables at that level (e.g., because they lack variation at that level) or their cluster mean is linearly dependent with another variable at that level.

The variable 'X1' (note this will be the name of variable causing the warning message) is being excluded from the imputation model at the level specified in the message (i.e., 2 in the above example message).

References

- Bartlett, J. W., Seaman, S. R., White, I. R., & Carpenter, J. R. (2015). Multiple imputation of covariates by fully conditional specification: accommodating the substantive model. *Statistical methods in medical research*, *24*(4), 462–487.
- Enders, C., Keller, B., & Levy, R. (2017). A fully conditional specification approach to multilevel imputation of categorical and continuous variables. *Psychological methods*.
- Gelman, A., & Rubin, D. B. (1992). Inference from iterative simulation using multiple sequences. *Statistical science*, 457–472.
- Kasim, R. M., & Raudenbush, S. W. (1998). Application of gibbs sampling to nested variance components models with heterogeneous within-group variance. *Journal of Educational and Behavioral Statistics*, *23*(2), 93–116.
- Montague, M., Krawec, J., Enders, C., & Dietz, S. (2014). The effects of cognitive strategy instruction on math problem solving of middle-school students of varying ability. *Journal of Educational Psychology*, *106*(2), 469.
- van Buuren, S., et al. (2011). Multiple imputation of multilevel data. *Handbook of advanced multilevel analysis*, 173–196.
- Zhang, Q., & Wang, L. (2016). Moderation analysis with missing data in the predictors. *Psychological Methods, Advanced online publication*.