

With TYPE=BASIC, the sample covariance matrix is calculated using division by $n-1$ to give the usual unbiased estimates. Sample statistics printed using the SAMPSTAT option of the OUTPUT command are the sample statistics used in model estimation. With maximum likelihood, the sample covariance matrix is divided by n instead of $n-1$ because these are the maximum likelihood estimates for the unrestricted model. Because the sample size is small, the difference between $n-1$ and n is more pronounced than in a large sample.

When a sample covariance matrix is the input for analysis, Mplus assumes that division by $n-1$ has been used. To prepare the matrix for ML analysis it is changed to division by n , that is, it is multiplied by $n-1$ and divided by n .

There are two different philosophies at play here when it comes to ML estimation. One is to assume normality for the outcomes resulting in using n for the sample statistics used in model estimation. The other is to assume a Wishart distribution for the sample covariance matrix using $n-1$. Mplus uses the former philosophy. This also impacts whether the ML fitting function at its optimum is multiplied by n or $n-1$ in obtaining the chi-square test of model fit. Mplus uses n . In large samples, there is no difference.

The Mplus Technical Appendices on the web site discuss the technical details of this in Appendix 5 of the technical appendices covering theory behind Mplus through Version 2.