



## Group X has inadequate data

This message appears after the **Make MDM** button is clicked. It is listed in the Command Prompt box that appears on the screen during the **MDM** file creation process. The groups listed in the Command Prompt box have insufficient data and are not included in the **MDM** file. A list of such units is also printed to the **\*.sts** file, which may be accessed using the **Check Stats** button in the **Make MDM** dialog box.

This is usually a function of the inclusion of a large number of variables in the data file with a large number of missing data values, especially when listwise deletion of records with missing data is requested at the **MDM** file creation stage of the analysis.

HLM will list the group IDs in question. However, one can also check the structure of the specific level-2 units listed and the distributions of the level-1 variables from within a statistical package data file by level-2 ID. If there are no valid data points for a level-2 unit when doing simple frequencies with a listwise deletion option in a statistical package, that unit will be one of those deleted when the **MDM** file is created. The same logic would apply to level-3 units listed as having inadequate data. In that case, descriptive statistics should be done for level-1 units by level-3 ID. This problem can be remedied by removing the variable(s) with the most missing data, imputing the missing values for these variables, or selecting run-time deletion instead of listwise deletion at **MDM** making time.