

Q: Will multicollinearity affect the Beta's?

A: There are several collinearity diagnostic tests available in PASW Statistics. However, one way to determine whether multicollinearity may be an issue in your model when using OLS regression is when Beta values attain a magnitude in excess of 1.0. Another tell-tale sign is when the Beta values exhibit opposite signs from the B coefficients.

The values of the B coefficients reported in the Bootstrap output do not differ from those reported without Bootstrapping; Beta coefficients are not reported.

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Q: I am using SPSS 17.0. How can I activate the PASW module in this version?

A: The PASW Bootstrapping module is supported only in PASW Statistics v. 18.

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Q: I missed what you said churn was.

A: Churn is also sometimes called attrition. In its broadest sense, the rate of churn is a measure of the number of individuals moving into or out of a collection over a specific period of time. The term is used in many contexts, but is most widely applied in business with respect to a contractual customer base. Most models to calculate CLV apply to the contractual or customer retention situation, and often involve the notion of churn rate, or the percentage of customers who end their relationship with a company in a given period.

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Q: Is Bootstrapping available on the AMOS package? Also, is the Automatic dummy coding using the Categorical function available on the SPSS 17 version?

A: AMOS is a stand-alone product which, while fully integrated with PASW Statistics, does not require that application to run. So, while AMOS supports bootstrapping, it does not require the PASW Bootstrapping module.

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The Automatic dummy coding using the Categorical function is available within PASW Statistics v.17, and preceding versions, provided you are using either the Regression module or the Advanced Statistics module; automated dummy coding is not available in the Base module, and so OLS regression, for example, would require that you prepare categorical predictors by manually dummy coding them.

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Q: How would you suggest reporting results which include bootstrapping?

A: This will vary based on the type of statistical procedure done. In some circumstances - clinical trials, for example - it is protocol to report the procedure done as well as the software and version used. If you were to use PASW Bootstrapping, I would recommend both citing that engine, as well as whether and how it guided your final model.

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Q: Will Bootstrapping change any goodness of fit test?

A: Bootstrapping does not effect the results from the H-L Goodness of Fit test in binary logistic regression.

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Q: How large should the original dataset be for effective use in bootstrapping?

A: There is not an absolute limit. However, it is widely recognized that it is better to maximize the size of your data set because you are re-sampling from that original dataset.

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Q: Will Bootstrapping be incorporated into Clementine? (PASW Modeler)

A. PASW Modeler and PASW Statistics are fully integrated, and so the former will be able to utilize Bootstrapping via the integration with PASW Statistics 18.

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Q: When would you NOT want to use bootstrapping?

A: Bootstrapping is often used as an alternative to inference based on parametric assumptions when those assumptions are in doubt, or where parametric inference is impossible or requires very complicated formulas for the calculation of standard errors. Analysts may choose not to use bootstrapping when parametric assumptions are confirmed, or not in doubt.

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Q: What should we be cautious about when interpreting bootstrapping results?

A: A disadvantage of bootstrapping is that while (under some conditions) it is asymptotically consistent, it does not provide general finite-sample guarantees, and has a tendency to be overly optimistic. The apparent simplicity may conceal the fact that important assumptions are being made when undertaking the bootstrap analysis (e.g. independence of samples) where these would be more formally stated in other approaches.

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Q: You showed beta coefficients and significance levels following bootstrapping with logistic regression. Are any other results produced following bootstrapping (with logistic regression, for example)?

A: In short, the results will vary depending on the type of analysis.