**Sample Design – Exercise 1**

Your client wants you to build a model to forecast the likelihood that a potential credit customer will default in the first 18 months of being offered credit. Default is defined as missing 4 consecutive payments (being 120 days past due). Currently, your client accepts 60% of all applicants, and has a “BAD Rate” (rate of default) of 12%. Someone that has no delinquency is considered a satisfactory customer, while anyone with 1 or 2 months of non-payment is considered to be less than satisfactory, but not a major problem. A customer missing 3 payments is a serious concern, but has not yet reached the level of default on the loan.

What is the goal of your project? What would be a successful model?

What is the dependent variable? What values will it take on?

What is the outcome period?

If you want data over a span of 2 years what dates represent the limits of the sample time frame?

**Sample Design – Exercise 2**

Your client wants you to build a model to forecast the likelihood that a customer who is 30 days past due (has missed one payment) will go on to become 60 days past due within the next 3 months. You are to build the model on the customers’ payment behavior data with the client (no external credit data will be used). You wish to use data from different months across a span of 2 years to ensure that seasonal variations do not affect your model.

What is the goal of your project? What would be a successful model?

What is the dependent variable? What values will it take on?

What is the outcome period?

What dates represent the limits of the sample time frame?