

This link contains a sample SAS program for fitting a series of related models for count response: Poisson log-linear model, Negative binomial log-linear model and Zero-inflated Poisson model. In addition, it includes Vuong's likelihood ratio test for ZIP vs. Poisson. Please see the following for more detailed descriptions of the models and test:

1. Lachenbruch PA. Analysis of data with excess zeros. *Statistical Methods in Medical Research* 2002; 11: 297-302.
2. Lambert D. Zero-inflated Poisson regression with an application to defects in manufacturing. *Technometrics* 1992; 34: 1-14.
3. Vuong QH. Likelihood ratio tests for model selection and non-nested hypotheses. *Econometrica*. 1989; 57(2):307-333.