1046-62-125 **Mavis Pararai*** (pararaim@iup.edu), Mathematics Department, Indiana University of Pennsyvania, Indiana, PA 15705. *Measurement Errors in the Generalized Poisson-Poisson Regression Model.* Preliminary report.

Count data regression models have been widely used in statistics to model response variables that are assumed to have been correctly reported. This assumption might be violated as some counts might be misreported. The generalized Poisson-Poisson mixture regression (GPPMR) model is developed to model counts that are accurately reported, underreported and overreported. The GPPMR model is applied to two data sets: (1) National Pregnancy and Health Survey (NPHS) Data and (2) School Crime Supplement Data. The GPPMR model is compared to the Negative Binomial-Poisson mixture regression (NBPMR) model. The two models seem to perform equally the same with the Negative Binomial-Poisson mixture regression model performing better than the GPPMR model. Finally, a simulation study is conducted to investigate the properties of the maximum likelihood estimates of the parameters of the GPPMR model. (Received July 29, 2008)