**Appendix**

The Bayesian model was created in MatLab and these program files are available with instruction on how to run the Bayesian linear regression analysis (at http://stat.columbia.edu/~bartlett/code.html or by contacting the author), from which this analysis may be replicated. The data were modeled as partially observed data,[1] where sensitivities at 20 dB were assumed to be either equal to or greater than 20 dB. Within the Bayesian approach these data points are treated as parameters in the model and the uncertainty of their true values is integrated over during estimation and prediction. To minimize the influence of the prior distributions, uninformative priors[1] were placed on the parameters of the model; $\alpha$ (the intercept), $\beta$ (the regression slope), $\sigma^2$ (the variance of the residuals), and the true value of any censored observations in the data. A large sample was drawn from the posterior distribution of the parameters using Markov Chain Monte Carlo simulation. This technique proceeds by sampling each parameter from its conditional distribution, conditioned on both the observed data and the values of the other parameters.

In this analysis the Markov chain was allowed to run for a period of 1000 iterations in order to reach convergence. After the first 1000 iterations were discarded, the chain ran for another 100,000 iterations to create a large sample from the posterior distribution of the parameters. Prediction intervals were empirically estimated by simulating ten predictions for each draw from the posterior distribution.

**REFERENCES**

1.  Gelman A, Carlin JB, Stern HS, Rubin DB. Bayesian Data Analysis, $2^{nd}$ ed. Boca Raton:

    Chapman & Hall/CRC; 2004.