Simulation

1. Use estimated parameters from actual data set to generate 100 simulated new data sets each that follow the data model.

2. Estimate total BTUs used ($\hat{B}_i$) on each simulated data set i.

3. Compare average of $\hat{B}_i$ with original (B). Also compare $SD(\hat{B}_i)$ with original estimate (SD_{orig}).

Results (3 original data sets)

N	B	ave($\hat{B}_i$)	SD_{orig}	SD($\hat{B}_i$)
194	5773.6	5780.7	69.4	93.9
142	4275.3	4280.6	68.4	111.4
140	3521.7	3526.6	72.8	65.4

Conclusions

Little or no bias in estimating total BTUs used. Estimates of variance were low on 2 of three data sets, probably because of failure of data to follow the assumed autoregressive model.