

# Tourism Data Analysis

Jan 2020

## Log Transformation with 100 observations of training window (ME and MSE calculated over 140 replications)

## [1] "ME"

R.method	Biased	Unbiased (Method 1)	Unbiased (Method 2)
Base	1.00	0.58	NA
Bottom-up	1.70	0.70	NA
MinT(Shrink)	0.79	0.58	NA
OLS	0.53	0.42	NA
WLS	1.20	0.64	NA

## [1] "New ME"

R.method	Biased	Unbiased (Method 1)	Unbiased (Method 2)
Base	1.00	0.58	1.40
Bottom-up	1.76	0.69	2.72
MinT(Shrink)	0.77	0.57	1.15
OLS	0.63	0.54	0.76
WLS	1.22	0.63	1.75

## [1] "MSE"

R.method	Biased	Unbiased (Method 1)	Unbiased (Method 2)
Base	1.00	0.99	1.01
Bottom-up	1.42	1.18	1.80
MinT(Shrink)	0.97	0.93	1.03
OLS	0.97	0.96	0.98
WLS	1.08	0.98	1.21

**BoxCox Transformation for  $\lambda \in (-0.5, 2)$  with 100 observations of training window (ME and MSE calculated over 140 replications)**

R.method	Biased	Unbiased (Method 1)	Unbiased (Method 2)
Base	1.00	0.63	1.37
Bottom-up	1.73	0.75	2.57
MinT(Shrink)	0.75	0.61	1.03
OLS	0.54	0.46	0.74
WLS	1.20	0.69	1.67

## [1] "New ME"

R.method	Biased	Unbiased (Method 1)	Unbiased (Method 2)
Base	1.00	0.73	1.38
Bottom-up	1.73	0.84	2.57
MinT(Shrink)	0.77	0.70	1.09
OLS	0.65	0.67	0.86
WLS	1.22	0.79	1.68

## [1] "MSE"

R.method	Biased	Unbiased (Method 1)	Unbiased (Method 2)
Base	1.00	0.98	1.04
Bottom-up	1.35	1.16	1.63
MinT(Shrink)	0.93	0.91	0.99
OLS	0.97	0.96	1.01
WLS	1.04	0.96	1.14