

APPENDIX

Table A1: Normalized Mean Error (NME) and Normalized Root Mean Squared Error (NRMSE) of Cost and Income Coefficient Estimates from Various Empirical Models under True Model 1 (Truncated Normal Distribution)

	Coefficient	Simulation Runs	No Correction		Standard Correction		Reweighting and Truncation
			Poisson	NB	Shaw	E-S	Linear Specification
NME							
	Cost (β_1)	1,000	0.8617	0.8617	0.8341	0.8967	0.2989
	Income (β_2)	1,000	0.8529	0.8529	0.8249	0.7757	0.3170
NRMSE							
	Cost (β_1)	1,000	0.8628	0.8628	0.8358	0.9042	0.3754
	Income (β_2)	1,000	0.8539	0.8539	0.8264	0.7788	0.3918

Note:

NB refers to the negative binomial model.

E-S refers to the Englin-Shonkwiler model.

Table A2: Normalized Mean Error (NME) and Normalized Root Mean Squared Error (NRMSE) for Cost and Income Coefficients from Various Empirical Models under True Models 2 & 3

	Coefficient	Simulation Runs	No Correction	Shaw	E-S	Reweighting and Truncation
True Model 2 (Poisson Distribution)						
NME						
	Cost (β_1)	1,000	0.2960	0.0834	0.1078	0.0993
	Income (β_2)	1,000	0.2889	0.0833	0.1007	0.1105
NRMSE						
	Cost (β_1)	1,000	0.3040	0.1035	0.1419	0.1241
	Income (β_2)	1,000	0.2989	0.1058	0.1321	0.1399
True Model 3 (Negative Binomial Distribution)						
NME						
	Cost (β_1)	1,000	0.2402	0.0950	0.0944	0.1262
	Income (β_2)	1,000	0.1716	0.1276	0.1232	0.1566
NRMSE						
	Cost (β_1)	1,000	0.2561	0.1199	0.1185	0.1587
	Income (β_2)	1,000	0.1984	0.1591	0.1530	0.1986

Note:

NB refers to the negative binomial model.

E-S refers to the Englin-Shonkwiler model.

Table A3: Leave-One-Out Cross Validation Results

Method	Negative Binomial (E-S)	Reweighting (Truncated NB)
Root Mean Squared Error (RMSE)	31.27	23.32
Mean Absolute Error (MAE)	23.06	11.49

Note:

NB refers to the negative binomial model.

E-S refers to the Englin-Shonkwiler model.

Figure A1: A Comparison of On-Site Sampling Distribution of Trip Count and the Probability Distribution of Trip Count for the General Population

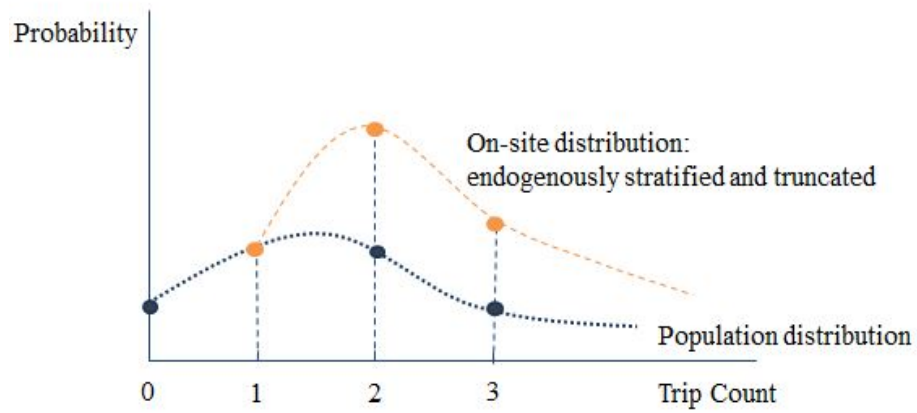
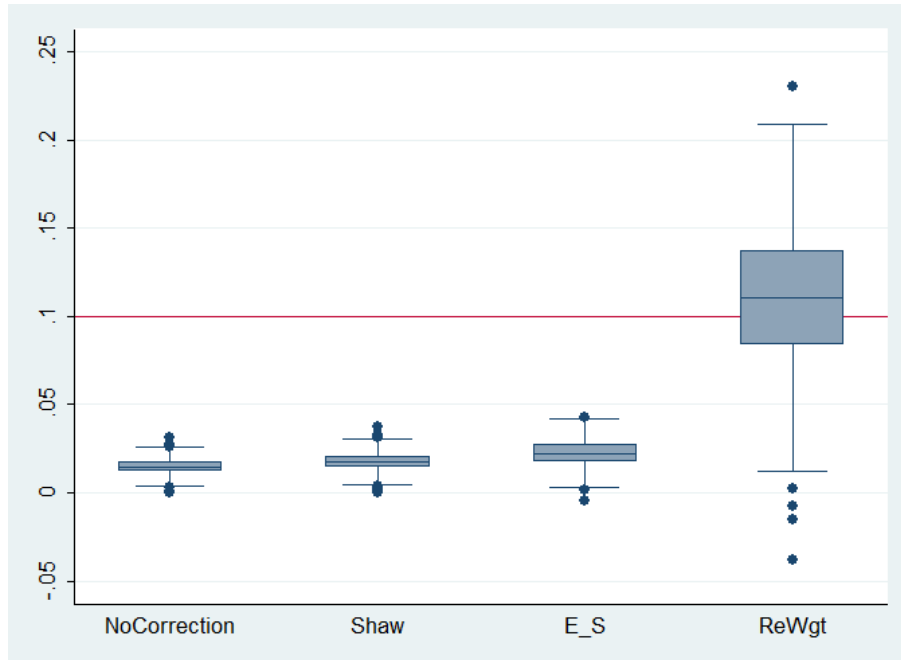
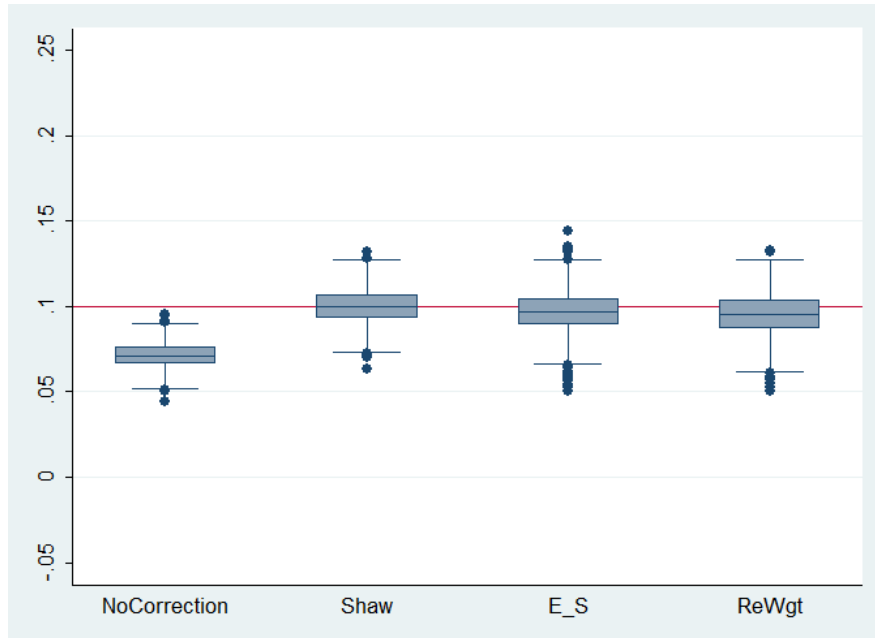


Figure A2: Box Plots of Income Coefficient Estimates under True Model 1 (Truncated Normal) (1,000 Simulation Runs)



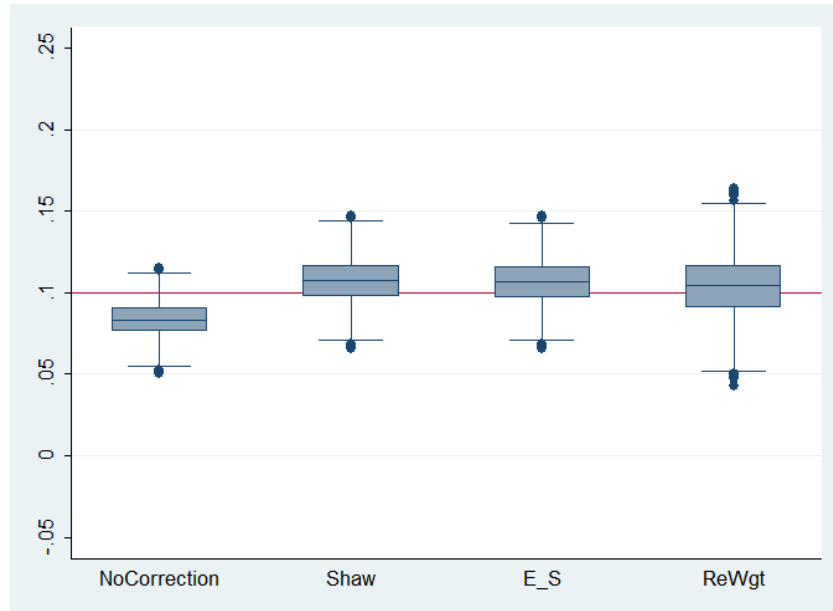
Note: True income coefficient $\beta_2=0.1$

Figure A3: Box Plots of Income Coefficient Estimates under True Model 2 (Poisson)
(1,000 Simulation Runs)



Note: True income coefficient $\beta_2=0.1$

Figure A4: Box Plots of Income Coefficient Estimates under True Model 3 (Negative Binomial)
(1,000 Simulation Runs)



Note: True income coefficient $\beta_2=0.1$