

## Some Simulation Results

Table 1. Results on 95% confidence intervals under a normal mixture model

Lower and upper non-coverage rates							
$p$	Traditional		Exponential		Normal		Emp
0.05	0.19	10.46	0.63	0.55	1.51	4.35	1.57
0.10	0.58	8.65	0.87	0.55	2.08	4.14	2.21
0.15	0.86	6.60	0.82	0.48	2.05	3.63	2.12
0.20	1.11	5.59	0.74	0.71	2.13	3.07	2.20
0.25	1.37	5.10	0.78	0.57	2.52	3.03	2.61
Average lower and upper bounds							
$p$	Traditional		Exponential		Normal		Emp
0.05	0.023	0.579	0.092	1.060	0.100	0.693	0.107
0.10	0.192	0.968	0.248	1.386	0.275	1.073	0.280
0.15	0.398	1.337	0.436	1.743	0.479	1.433	0.484
0.20	0.628	1.697	0.646	2.105	0.705	1.785	0.710
0.25	0.870	2.042	0.868	2.455	0.943	2.121	0.948

Table 2. Results on 95% confidence intervals under exponential mixture model

Lower and upper non-coverage rates							
$p$	Traditional		Exponential		Normal		Em
0.05	0.09	17.62	1.69	3.42	1.07	10.32	1.88
0.10	0.23	12.64	1.79	3.02	1.29	7.40	2.02
0.15	0.47	10.99	2.05	3.32	1.29	6.80	2.16
0.20	0.51	9.09	2.04	3.04	1.35	5.67	2.21
0.25	0.63	8.49	1.92	3.11	1.32	5.61	2.00
Average lower and upper bounds							
$p$	Traditional		Exponential		Normal		Em
0.05	-0.020	0.526	0.079	0.909	0.053	0.665	0.081
0.10	0.103	0.893	0.213	1.188	0.177	1.121	0.215
0.15	0.257	1.230	0.374	1.493	0.335	1.349	0.376
0.20	0.430	1.552	0.551	1.797	0.508	1.664	0.553
0.25	0.618	1.864	0.739	2.095	0.694	1.968	0.741

Table 3. Results on 95% confidence intervals under Gamma mixture model

Lower and upper non-coverage rates							
$p$	Traditional		Exponential		Normal		Emp
0.05	0.40	9.92	0.83	0.79	1.94	4.27	1.95
0.10	0.77	7.86	0.98	0.58	2.25	3.23	2.26
0.15	0.99	7.41	0.91	0.38	2.09	4.17	2.26
0.20	0.84	6.27	0.68	0.48	2.10	3.80	2.25
0.25	1.32	5.48	0.91	0.53	2.35	3.49	2.55
Lower and upper bounds							
$p$	Traditional		Exponential		Normal		Emp
0.05	0.021	0.496	0.079	0.913	0.087	0.593	0.093
0.10	0.166	0.827	0.214	1.195	0.236	0.926	0.239
0.15	0.072	0.876	0.376	1.500	0.414	1.230	0.420
0.20	0.598	1.401	0.556	1.809	0.608	1.531	0.614
0.25	0.749	1.753	0.745	2.108	0.810	1.820	0.818

Table 4. Results on 95% confidence intervals based on the Canadian Labor Force Survey-200

$p$	Traditional		Exponential		Normal	
Lower and upper non-coverage rates						
0.21	0.70	7.25	1.30	1.21	1.63	4.56
Average lower and upper bounds						
0.21	9.824	28.996	10.958	34.577	11.189	30.691

Table 5. Results on 95% EL and Godambe and Thompson confidence interval under the stratified random sampling

$p_1, p_2$ : proportion of zero values in strata 1 and 2;  
 $p_l, p_u$ : lower and upper non-coverage rates;  
 $C_l, C_u$ : lower and upper confidence bounds.

$p_1$	$p_2$	Empirical likelihood interval					Godambe and Thompson		
		$p_l$	$p_u$	$C_l$	$C_u$	length	$p_l$	$p_u$	
Normal, Normal									
0.05	0.05	1.81	3.16	0.185	0.703	0.518	0.53	6.89	0.1
0.10	0.05	2.33	3.39	0.241	0.797	0.556	0.68	6.77	0.1
0.15	0.05	2.43	2.92	0.308	0.900	0.592	0.98	6.84	0.2
0.10	0.10	2.34	3.15	0.439	1.143	0.704	1.02	6.17	0.3
0.15	0.10	3.24	3.24	0.511	1.241	0.730	1.08	5.69	0.4
Exponential, Exponential									
0.05	0.05	1.66	6.81	0.145	0.712	0.567	0.28	12.30	0.0
0.10	0.05	2.24	5.97	0.191	0.824	0.633	0.34	10.92	0.1
0.15	0.05	1.96	6.25	0.245	0.937	0.692	0.29	10.44	0.1
0.10	0.10	2.31	5.70	0.353	1.162	0.809	0.58	9.43	0.2
0.15	0.10	3.02	5.36	0.415	1.276	0.861	0.57	8.32	0.3
Exponential, Normal									
0.05	0.05	2.04	5.15	0.159	0.717	0.558	0.18	10.13	0.0
0.10	0.05	2.16	4.70	0.212	0.804	0.592	0.36	9.39	0.1
0.15	0.05	2.53	4.86	0.279	0.909	0.630	0.59	8.62	0.2
0.10	0.10	2.50	4.52	0.375	1.147	0.772	0.54	8.33	0.2
0.15	0.10	3.23	4.29	0.450	1.249	0.799	0.58	7.83	0.3