

Online Resource: supplementary material

A Numerical results: the Banzhaf-Owen value for the IMF

This appendix includes the results of estimating the Banzhaf-Owen value for the countries belonging to the IMF in 2002. We use several quotas in the corresponding weighted majority game. Note that every constituency is completely included in a part of this table.

Country	Voting right	$q = 50\%$			$q = 70\%$			$q = 85\%$		
		BzO_i	Absolute error (st.)	Absolute error (SRS)	BzO_i	Absolute error (st.)	Absolute error (SRS)	BzO_i	Absolute error (st.)	Absolute error (SRS)
United States	17.11	0.64713	$6.1616 \cdot 10^{-5}$	$2.1447 \cdot 10^{-4}$	0.10005	$3.4455 \cdot 10^{-5}$	$2.9500 \cdot 10^{-5}$	0.00117	$2.1373 \cdot 10^{-6}$	$1.6903 \cdot 10^{-5}$
Japan	6.14	0.17515	$1.4522 \cdot 10^{-4}$	$1.2398 \cdot 10^{-4}$	0.05883	$1.9061 \cdot 10^{-5}$	$2.3800 \cdot 10^{-5}$	0.00106	$1.0952 \cdot 10^{-5}$	$1.7081 \cdot 10^{-5}$
Germany	6.00	0.17117	$1.8593 \cdot 10^{-4}$	$2.9919 \cdot 10^{-4}$	0.05760	$6.7111 \cdot 10^{-5}$	$2.8500 \cdot 10^{-6}$	0.00106	$9.0183 \cdot 10^{-6}$	$5.4800 \cdot 10^{-7}$
France	4.95	0.14109	$5.9164 \cdot 10^{-5}$	$6.6000 \cdot 10^{-5}$	0.04805	$3.5750 \cdot 10^{-5}$	$4.4220 \cdot 10^{-5}$	0.00096	$3.0039 \cdot 10^{-6}$	$3.3466 \cdot 10^{-6}$
United Kingdom	4.95	0.14109	$3.3364 \cdot 10^{-5}$	$1.0100 \cdot 10^{-5}$	0.04805	$4.2749 \cdot 10^{-5}$	$1.3922 \cdot 10^{-4}$	0.00096	$1.1604 \cdot 10^{-5}$	$9.5340 \cdot 10^{-7}$
Austria	0.87	0.02482	$1.3050 \cdot 10^{-4}$	$5.0196 \cdot 10^{-5}$	0.00840	$1.3024 \cdot 10^{-5}$	$7.5928 \cdot 10^{-5}$	0.00016	$2.5631 \cdot 10^{-6}$	$3.3930 \cdot 10^{-6}$
Belarus	0.19	0.00542	$2.3529 \cdot 10^{-5}$	$8.0527 \cdot 10^{-6}$	0.00184	$1.8346 \cdot 10^{-5}$	$1.6680 \cdot 10^{-6}$	0.00003	$2.2674 \cdot 10^{-6}$	$1.8914 \cdot 10^{-7}$
Belgium	2.13	0.06181	$2.1016 \cdot 10^{-5}$	$6.2457 \cdot 10^{-5}$	0.02050	$7.1881 \cdot 10^{-5}$	$6.8050 \cdot 10^{-5}$	0.00037	$2.4297 \cdot 10^{-7}$	$1.3489 \cdot 10^{-6}$
Czech Republic	0.39	0.01113	$4.2634 \cdot 10^{-5}$	$3.1981 \cdot 10^{-5}$	0.00377	$1.8817 \cdot 10^{-5}$	$5.8590 \cdot 10^{-6}$	0.00007	$1.5703 \cdot 10^{-6}$	$4.5231 \cdot 10^{-7}$
Hungary	0.49	0.01398	$2.7387 \cdot 10^{-5}$	$2.4046 \cdot 10^{-5}$	0.00473	$1.3949 \cdot 10^{-5}$	$2.7897 \cdot 10^{-5}$	0.00009	$5.3244 \cdot 10^{-7}$	$7.6598 \cdot 10^{-7}$
Kazakhstan	0.18	0.00513	$3.2371 \cdot 10^{-5}$	$2.3610 \cdot 10^{-5}$	0.00174	$4.6682 \cdot 10^{-5}$	$8.5660 \cdot 10^{-6}$	0.00003	$3.5991 \cdot 10^{-6}$	$4.6103 \cdot 10^{-6}$
Luxembourg	0.14	0.00399	$1.2423 \cdot 10^{-5}$	$1.1599 \cdot 10^{-6}$	0.00135	$4.7197 \cdot 10^{-6}$	$3.9050 \cdot 10^{-6}$	0.00003	$2.6545 \cdot 10^{-6}$	$1.0691 \cdot 10^{-6}$
Slovak Republic	0.18	0.00513	$6.5286 \cdot 10^{-6}$	$4.0610 \cdot 10^{-5}$	0.00174	$7.3582 \cdot 10^{-5}$	$3.4340 \cdot 10^{-6}$	0.00003	$2.5006 \cdot 10^{-6}$	$1.9897 \cdot 10^{-6}$
Slovenia	0.12	0.00342	$1.7480 \cdot 10^{-5}$	$5.9344 \cdot 10^{-6}$	0.00116	$4.9786 \cdot 10^{-6}$	$2.0706 \cdot 10^{-5}$	0.00002	$3.8900 \cdot 10^{-7}$	$2.9657 \cdot 10^{-7}$
Turkey	0.46	0.01312	$6.4429 \cdot 10^{-5}$	$3.4827 \cdot 10^{-5}$	0.00444	$2.4971 \cdot 10^{-5}$	$2.5713 \cdot 10^{-5}$	0.00008	$2.0108 \cdot 10^{-6}$	$2.5308 \cdot 10^{-6}$
Armenia	0.05	0.00143	$5.1407 \cdot 10^{-7}$	$1.9095 \cdot 10^{-5}$	0.00049	$1.1696 \cdot 10^{-5}$	$7.6133 \cdot 10^{-6}$	0.00001	$5.9365 \cdot 10^{-7}$	$1.3124 \cdot 10^{-6}$
Bosnia and Herzegovina	0.09	0.00257	$2.0815 \cdot 10^{-6}$	$1.1435 \cdot 10^{-5}$	0.00087	$1.1876 \cdot 10^{-7}$	$1.2008 \cdot 10^{-6}$	0.00002	$1.5603 \cdot 10^{-6}$	$1.1478 \cdot 10^{-6}$
Bulgaria	0.31	0.00884	$1.6631 \cdot 10^{-5}$	$3.5614 \cdot 10^{-5}$	0.00301	$1.8565 \cdot 10^{-5}$	$1.7787 \cdot 10^{-5}$	0.00006	$3.3708 \cdot 10^{-6}$	$9.2932 \cdot 10^{-7}$
Croatia	0.18	0.00513	$2.5455 \cdot 10^{-5}$	$4.3232 \cdot 10^{-6}$	0.00175	$2.4344 \cdot 10^{-7}$	$1.2129 \cdot 10^{-5}$	0.00003	$2.1902 \cdot 10^{-6}$	$1.2584 \cdot 10^{-6}$
Cyprus	0.08	0.00228	$3.3818 \cdot 10^{-5}$	$1.9868 \cdot 10^{-5}$	0.00078	$2.8346 \cdot 10^{-5}$	$1.4769 \cdot 10^{-5}$	0.00002	$1.7197 \cdot 10^{-6}$	$4.8789 \cdot 10^{-7}$
Georgia	0.08	0.00228	$4.5819 \cdot 10^{-6}$	$7.1324 \cdot 10^{-6}$	0.00078	$3.1945 \cdot 10^{-5}$	$1.1231 \cdot 10^{-5}$	0.00002	$6.7910 \cdot 10^{-7}$	$5.8789 \cdot 10^{-7}$
Israel	0.44	0.01254	$4.1869 \cdot 10^{-5}$	$6.2608 \cdot 10^{-5}$	0.00427	$2.3332 \cdot 10^{-5}$	$2.3000 \cdot 10^{-6}$	0.00008	$2.2262 \cdot 10^{-6}$	$2.3149 \cdot 10^{-7}$
Macedonia	0.04	0.00114	$2.1471 \cdot 10^{-5}$	$6.2222 \cdot 10^{-6}$	0.00039	$1.5739 \cdot 10^{-6}$	$2.6329 \cdot 10^{-6}$	0.00001	$5.4759 \cdot 10^{-7}$	$1.1434 \cdot 10^{-6}$
Moldova	0.07	0.00200	$6.2458 \cdot 10^{-6}$	$3.6680 \cdot 10^{-6}$	0.00068	$2.1069 \cdot 10^{-6}$	$4.3038 \cdot 10^{-6}$	0.00001	$8.8367 \cdot 10^{-9}$	$4.1934 \cdot 10^{-7}$
The Netherlands	2.39	0.06820	$8.2046 \cdot 10^{-5}$	$8.3370 \cdot 10^{-5}$	0.02309	$3.0123 \cdot 10^{-5}$	$3.6280 \cdot 10^{-5}$	0.00043	$1.0537 \cdot 10^{-6}$	$4.5114 \cdot 10^{-6}$
Romania	0.49	0.01397	$2.5895 \cdot 10^{-5}$	$4.2719 \cdot 10^{-5}$	0.00475	$1.8785 \cdot 10^{-5}$	$2.0060 \cdot 10^{-6}$	0.00009	$3.8458 \cdot 10^{-6}$	$1.4633 \cdot 10^{-6}$
Ukraine	0.64	0.01825	$2.3656 \cdot 10^{-5}$	$3.1357 \cdot 10^{-5}$	0.00621	$1.8118 \cdot 10^{-5}$	$3.5581 \cdot 10^{-5}$	0.00012	$8.8965 \cdot 10^{-7}$	$2.2086 \cdot 10^{-6}$
Costa Rica	0.09	0.00256	$4.0904 \cdot 10^{-6}$	$3.8016 \cdot 10^{-6}$	0.00088	$5.6037 \cdot 10^{-5}$	$6.8709 \cdot 10^{-6}$	0.00002	$3.5043 \cdot 10^{-6}$	$1.1007 \cdot 10^{-6}$
El Salvador	0.09	0.00256	$1.5990 \cdot 10^{-5}$	$3.5698 \cdot 10^{-5}$	0.00088	$2.1537 \cdot 10^{-5}$	$1.8471 \cdot 10^{-5}$	0.00002	$1.7047 \cdot 10^{-6}$	$9.9928 \cdot 10^{-7}$
Guatemala	0.11	0.00313	$1.5176 \cdot 10^{-5}$	$5.3141 \cdot 10^{-6}$	0.00107	$3.8977 \cdot 10^{-6}$	$4.3910 \cdot 10^{-6}$	0.00002	$3.2032 \cdot 10^{-8}$	$2.6406 \cdot 10^{-6}$
Honduras	0.07	0.00200	$1.9357 \cdot 10^{-5}$	$2.7351 \cdot 10^{-5}$	0.00068	$2.8309 \cdot 10^{-5}$	$1.9998 \cdot 10^{-5}$	0.00001	$2.2415 \cdot 10^{-6}$	$3.8290 \cdot 10^{-8}$
Mexico	1.20	0.03420	$9.0735 \cdot 10^{-5}$	$1.3841 \cdot 10^{-5}$	0.01168	$3.0228 \cdot 10^{-6}$	$6.8000 \cdot 10^{-6}$	0.00024	$5.8888 \cdot 10^{-6}$	$2.2289 \cdot 10^{-6}$
Nicaragua	0.07	0.00200	$4.9424 \cdot 10^{-6}$	$2.8449 \cdot 10^{-5}$	0.00068	$2.2508 \cdot 10^{-5}$	$7.1016 \cdot 10^{-6}$	0.00001	$2.1413 \cdot 10^{-6}$	$2.0383 \cdot 10^{-6}$
Spain	1.42	0.04047	$1.5032 \cdot 10^{-5}$	$5.7706 \cdot 10^{-5}$	0.01382	$4.0805 \cdot 10^{-5}$	$3.3750 \cdot 10^{-5}$	0.00028	$3.0391 \cdot 10^{-6}$	$6.0900 \cdot 10^{-7}$
Venezuela	1.24	0.03534	$5.8529 \cdot 10^{-5}$	$2.8520 \cdot 10^{-5}$	0.01207	$6.9155 \cdot 10^{-5}$	$6.1630 \cdot 10^{-5}$	0.00025	$7.1297 \cdot 10^{-6}$	$3.2567 \cdot 10^{-6}$
Albania	0.03	0.00085	$1.0060 \cdot 10^{-5}$	$4.1615 \cdot 10^{-6}$	0.00030	$8.0147 \cdot 10^{-6}$	$3.6832 \cdot 10^{-6}$	0.00001	$2.0026 \cdot 10^{-7}$	$1.0014 \cdot 10^{-6}$
Greece	0.39	0.01109	$1.2521 \cdot 10^{-5}$	$4.4461 \cdot 10^{-5}$	0.00384	$2.6096 \cdot 10^{-5}$	$4.2500 \cdot 10^{-7}$	0.00009	$4.2451 \cdot 10^{-6}$	$2.9721 \cdot 10^{-6}$
Italy	3.26	0.09289	$7.8162 \cdot 10^{-5}$	$4.9506 \cdot 10^{-5}$	0.03178	$2.1302 \cdot 10^{-5}$	$1.9450 \cdot 10^{-5}$	0.00066	$5.8213 \cdot 10^{-6}$	$5.7510 \cdot 10^{-6}$
Malta	0.06	0.00171	$1.4275 \cdot 10^{-5}$	$1.2672 \cdot 10^{-5}$	0.00059	$2.2914 \cdot 10^{-6}$	$1.9043 \cdot 10^{-6}$	0.00001	$2.5299 \cdot 10^{-6}$	$2.8510 \cdot 10^{-8}$
Portugal	0.41	0.01167	$2.6228 \cdot 10^{-5}$	$3.5892 \cdot 10^{-5}$	0.00403	$3.0892 \cdot 10^{-5}$	$1.3462 \cdot 10^{-5}$	0.00009	$4.0662 \cdot 10^{-6}$	$8.5074 \cdot 10^{-7}$
San Marino	0.01	0.00028	$3.0195 \cdot 10^{-6}$	$2.6801 \cdot 10^{-6}$	0.00010	$2.0427 \cdot 10^{-6}$	$1.5641 \cdot 10^{-7}$	0.00000	$2.6474 \cdot 10^{-7}$	$1.3561 \cdot 10^{-7}$
Antigua and Barbuda	0.02	0.00057	$3.5508 \cdot 10^{-7}$	$3.9440 \cdot 10^{-6}$	0.00020	$3.0165 \cdot 10^{-5}$	$1.2637 \cdot 10^{-6}$	0.00000	$9.4294 \cdot 10^{-7}$	$1.0576 \cdot 10^{-6}$
The Bahamas	0.07	0.00199	$6.5451 \cdot 10^{-6}$	$1.8566 \cdot 10^{-5}$	0.00069	$1.3149 \cdot 10^{-6}$	$3.1969 \cdot 10^{-6}$	0.00002	$1.7752 \cdot 10^{-6}$	$1.3573 \cdot 10^{-7}$
Barbados	0.04	0.00114	$1.3004 \cdot 10^{-5}$	$1.9973 \cdot 10^{-6}$	0.00039	$1.5581 \cdot 10^{-6}$	$3.6637 \cdot 10^{-6}$	0.00001	$3.8738 \cdot 10^{-7}$	$2.1588 \cdot 10^{-7}$
Belize	0.02	0.00057	$1.2550 \cdot 10^{-6}$	$1.5560 \cdot 10^{-6}$	0.00020	$3.0465 \cdot 10^{-5}$	$1.3363 \cdot 10^{-6}$	0.00000	$1.7430 \cdot 10^{-6}$	$4.4241 \cdot 10^{-7}$
Canada	2.94	0.08373	$8.0390 \cdot 10^{-5}$	$7.6795 \cdot 10^{-5}$	0.02874	$1.5246 \cdot 10^{-5}$	$6.8570 \cdot 10^{-5}$	0.00062	$3.8929 \cdot 10^{-6}$	$4.0895 \cdot 10^{-6}$
Dominica	0.02	0.00057	$4.1449 \cdot 10^{-6}$	$4.4560 \cdot 10^{-6}$	0.00020	$3.4565 \cdot 10^{-5}$	$5.6370 \cdot 10^{-7}$	0.00000	$1.4431 \cdot 10^{-6}$	$1.5759 \cdot 10^{-7}$
Grenada	0.02	0.00057	$4.3449 \cdot 10^{-6}$	$1.7440 \cdot 10^{-6}$	0.00020	$2.4365 \cdot 10^{-5}$	$1.4637 \cdot 10^{-6}$	0.00000	$9.4316 \cdot 10^{-7}$	$6.5759 \cdot 10^{-7}$
Ireland	0.40	0.01138	$8.4215 \cdot 10^{-6}$	$5.4292 \cdot 10^{-5}$	0.00394	$1.7634 \cdot 10^{-5}$	$1.5970 \cdot 10^{-6}$	0.00009	$3.1590 \cdot 10^{-6}$	$3.1763 \cdot 10^{-6}$
Jamaica	0.14	0.00398	$2.7768 \cdot 10^{-5}$	$1.1508 \cdot 10^{-5}$	0.00138	$1.5903 \cdot 10^{-5}$	$1.3750 \cdot 10^{-6}$	0.00003	$2.0475 \cdot 10^{-6}$	$2.3448 \cdot 10^{-7}$
St Kitts and Nevis	0.02	0.00057	$4.3551 \cdot 10^{-6}$	$8.2560 \cdot 10^{-6}$	0.00020	$2.8565 \cdot 10^{-5}$	$4.5637 \cdot 10^{-6}$	0.00000	$1.9430 \cdot 10^{-6}$	$5.7590 \cdot 10^{-8}$
St Lucia	0.02	0.00057	$3.1449 \cdot 10^{-6}$	$2.8440 \cdot 10^{-6}$	0.00020	$2.9265 \cdot 10^{-5}$	$6.2363 \cdot 10^{-6}$	0.00000	$2.0429 \cdot 10^{-6}$	$1.0424 \cdot 10^{-6}$
St Vincent	0.02	0.00057	$1.2845 \cdot 10^{-5}$	$5.0440 \cdot 10^{-6}$	0.00020	$3.3865 \cdot 10^{-5}$	$4.8637 \cdot 10^{-6}$	0.00000	$1.7429 \cdot 10^{-6}$	$9.5759 \cdot 10^{-7}$
Denmark	0.77	0.02192	$6.5345 \cdot 10^{-6}$	$3.6733 \cdot 10^{-5}$	0.00754	$2.5506 \cdot 10^{-5}$	$2.0173 \cdot 10^{-5}$	0.00016	$5.4906 \cdot 10^{-6}$	$2.0798 \cdot 10^{-6}$
Estonia	0.04	0.00114	$8.5981 \cdot 10^{-6}$	$2.2054 \cdot 10^{-6}$	0.00039	$3.0366 \cdot 10^{-6}$	$5.6669 \cdot 10^{-6}$	0.00001	$8.3011 \cdot 10^{-7}$	$1.2353 \cdot 10^{-6}$
Finland	0.59	0.01680	$3.4081 \cdot 10^{-5}$	$7.9633 \cdot 10^{-5}$	0.00577	$4.2532 \cdot 10^{-6}$	$1.6909 \cdot 10^{-5}$	0.00013	$2.7248 \cdot 10^{-6}$	$3.8409 \cdot 10^{-6}$
Iceland	0.07	0.00199	$6.9036 \cdot 10^{-6}$	$1.8610 \cdot 10^{-5}$	0.00069	$2.5930 \cdot 10^{-6}$	$3.6865 \cdot 10^{-6}$	0.00002	$1.8161 \cdot 10^{-6}$	$1.3150 \cdot 10^{-8}$
Latvia	0.07	0.00199	$1.7296 \cdot 10^{-5}$	$2.6410 \cdot 10^{-5}$	0.00069	$1.9793 \cdot 10^{-5}$	$6.2865 \cdot 10^{-6}$	0.00002	$2.0161 \cdot 10^{-6}$	$1.3150 \cdot 10^{-8}$
Lithuania	0.08	0.00228	$2.0016 \cdot 10^{-5}$	$1.5509 \cdot 10^{-5}$	0.00078	$1.7596 \cdot 10^{-6}$	$9.5510 \cdot 10^{-6}$	0.00002	$1.5418 \cdot 10^{-6}$	$1.3483 \cdot 10^{-6}$
Norway	0.78	0.02221	$5.2712 \cdot 10^{-5}$	$1.0246 \cdot 10^{-4}$	0.00763	$7.8665 \cdot 10^{-6}$	$4.0052 \cdot 10^{-5}$	0.00017	$4.3552 \cdot 10^{-6}$	$1.2722 \cdot 10^{-6}$
Sweden	1.11	0.03161	$1.0045 \cdot 10^{-4}$	$2.3253 \cdot 10^{-5}$	0.01086	$2.0140 \cdot 10^{-5}$	$2.8060 \cdot 10^{-5}$	0.00023	$1.1495 \cdot 10^{-5}$	$4.2051 \cdot 10^{-6}$

Table A.1: Absolute errors for the weighted majority game in the Banzhaf-Owen value estimation.

Country	Voting right	$q = 50\%$			$q = 70\%$			$q = 85\%$		
		BzO_i	Absolute error (st.)	Absolute error (SRS)	BzO_i	Absolute error (st.)	Absolute error (SRS)	BzO_i	Absolute error (st.)	Absolute error (SRS)
Australia	1.50	0.04271	$1.6001 \cdot 10^{-5}$	$5.6780 \cdot 10^{-5}$	0.01469	$1.2410 \cdot 10^{-5}$	$1.7600 \cdot 10^{-6}$	0.00032	$4.6202 \cdot 10^{-6}$	$5.2619 \cdot 10^{-6}$
Kiribati	0.01	0.00028	$1.9982 \cdot 10^{-6}$	$2.4034 \cdot 10^{-6}$	0.00010	$3.8674 \cdot 10^{-7}$	$2.4148 \cdot 10^{-6}$	0.00000	$4.6273 \cdot 10^{-7}$	$4.3748 \cdot 10^{-7}$
Korea	0.76	0.02163	$4.3403 \cdot 10^{-5}$	$1.8608 \cdot 10^{-5}$	0.00745	$2.3798 \cdot 10^{-5}$	$4.9482 \cdot 10^{-5}$	0.00017	$1.2620 \cdot 10^{-6}$	$5.5287 \cdot 10^{-6}$
Marshall Islands	0.01	0.00028	$1.9985 \cdot 10^{-6}$	$2.8034 \cdot 10^{-6}$	0.00010	$3.3870 \cdot 10^{-6}$	$1.4148 \cdot 10^{-6}$	0.00000	$3.6400 \cdot 10^{-7}$	$5.6252 \cdot 10^{-7}$
Micronesia Federated	0.01	0.00028	$4.3983 \cdot 10^{-6}$	$5.9660 \cdot 10^{-7}$	0.00010	$9.0869 \cdot 10^{-6}$	$1.3852 \cdot 10^{-6}$	0.00000	$6.5457 \cdot 10^{-8}$	$1.6252 \cdot 10^{-7}$
Mongolia	0.04	0.00114	$7.5973 \cdot 10^{-6}$	$8.5028 \cdot 10^{-6}$	0.00039	$6.0640 \cdot 10^{-6}$	$2.7010 \cdot 10^{-7}$	0.00001	$2.3201 \cdot 10^{-7}$	$8.7240 \cdot 10^{-7}$
New Zealand	0.42	0.01195	$2.8434 \cdot 10^{-6}$	$4.0102 \cdot 10^{-5}$	0.00412	$8.1229 \cdot 10^{-5}$	$1.9545 \cdot 10^{-5}$	0.00009	$2.3017 \cdot 10^{-6}$	$1.2006 \cdot 10^{-6}$
Palau	0.01	0.00028	$3.9018 \cdot 10^{-6}$	$6.1966 \cdot 10^{-6}$	0.00010	$6.5869 \cdot 10^{-6}$	$2.0148 \cdot 10^{-6}$	0.00000	$1.6402 \cdot 10^{-7}$	$3.3748 \cdot 10^{-7}$
Papua New Guinea	0.07	0.00199	$7.7615 \cdot 10^{-6}$	$2.7850 \cdot 10^{-5}$	0.00069	$1.5523 \cdot 10^{-6}$	$9.3378 \cdot 10^{-6}$	0.00002	$9.5574 \cdot 10^{-7}$	$1.7324 \cdot 10^{-6}$
Philippines	0.42	0.01195	$2.7458 \cdot 10^{-5}$	$2.7098 \cdot 10^{-5}$	0.00412	$9.9131 \cdot 10^{-5}$	$2.0745 \cdot 10^{-5}$	0.00009	$5.5917 \cdot 10^{-6}$	$3.2994 \cdot 10^{-6}$
Samoa	0.02	0.00057	$4.9070 \cdot 10^{-6}$	$1.1403 \cdot 10^{-5}$	0.00020	$1.0663 \cdot 10^{-5}$	$3.7399 \cdot 10^{-6}$	0.00000	$4.2603 \cdot 10^{-7}$	$6.7507 \cdot 10^{-7}$
Seychelles	0.02	0.00057	$8.0071 \cdot 10^{-6}$	$4.1967 \cdot 10^{-6}$	0.00020	$1.5063 \cdot 10^{-5}$	$1.9399 \cdot 10^{-6}$	0.00000	$1.7251 \cdot 10^{-7}$	$3.7507 \cdot 10^{-7}$
Solomon Islands	0.02	0.00057	$4.9933 \cdot 10^{-6}$	$1.1497 \cdot 10^{-5}$	0.00020	$3.1638 \cdot 10^{-6}$	$3.3399 \cdot 10^{-6}$	0.00000	$5.2592 \cdot 10^{-7}$	$2.2493 \cdot 10^{-7}$
Vanuatu	0.02	0.00057	$8.2068 \cdot 10^{-6}$	$1.1203 \cdot 10^{-5}$	0.00020	$1.8164 \cdot 10^{-5}$	$4.6399 \cdot 10^{-6}$	0.00000	$1.0265 \cdot 10^{-6}$	$1.7507 \cdot 10^{-7}$
Saudi Arabia	3.23	0.09190	$8.0287 \cdot 10^{-5}$	$2.0337 \cdot 10^{-4}$	0.03172	$5.6772 \cdot 10^{-6}$	$6.7840 \cdot 10^{-5}$	0.00072	$2.9125 \cdot 10^{-6}$	$1.0058 \cdot 10^{-5}$
Angola	0.14	0.00398	$5.0205 \cdot 10^{-6}$	$1.0996 \cdot 10^{-5}$	0.00137	$1.0643 \cdot 10^{-6}$	$2.0365 \cdot 10^{-5}$	0.00003	$1.7260 \cdot 10^{-6}$	$1.3020 \cdot 10^{-6}$
Botswana	0.04	0.00114	$1.1076 \cdot 10^{-5}$	$5.6704 \cdot 10^{-6}$	0.00039	$1.7248 \cdot 10^{-5}$	$3.4432 \cdot 10^{-6}$	0.00001	$6.0313 \cdot 10^{-7}$	$3.8734 \cdot 10^{-7}$
Burundi	0.05	0.00142	$4.7459 \cdot 10^{-7}$	$8.8800 \cdot 10^{-7}$	0.00049	$1.1619 \cdot 10^{-6}$	$1.2467 \cdot 10^{-6}$	0.00001	$3.3160 \cdot 10^{-7}$	$5.3998 \cdot 10^{-7}$
Eritrea	0.02	0.00057	$3.8106 \cdot 10^{-6}$	$4.1520 \cdot 10^{-7}$	0.00020	$8.2438 \cdot 10^{-7}$	$8.7830 \cdot 10^{-7}$	0.00000	$1.0460 \cdot 10^{-6}$	$7.5608 \cdot 10^{-7}$
Ethiopia	0.07	0.00199	$8.0111 \cdot 10^{-6}$	$5.9983 \cdot 10^{-6}$	0.00069	$2.5123 \cdot 10^{-6}$	$1.4526 \cdot 10^{-5}$	0.00002	$1.1119 \cdot 10^{-6}$	$1.0248 \cdot 10^{-7}$
The Gambia	0.03	0.00085	$1.0761 \cdot 10^{-5}$	$1.8279 \cdot 10^{-6}$	0.00029	$6.0370 \cdot 10^{-6}$	$1.6740 \cdot 10^{-7}$	0.00001	$3.2497 \cdot 10^{-7}$	$6.1561 \cdot 10^{-7}$
Kenya	0.14	0.00398	$1.1764 \cdot 10^{-5}$	$8.7040 \cdot 10^{-6}$	0.00137	$3.4962 \cdot 10^{-5}$	$6.7350 \cdot 10^{-6}$	0.00003	$1.9227 \cdot 10^{-6}$	$5.9800 \cdot 10^{-7}$
Lesotho	0.03	0.00085	$2.1933 \cdot 10^{-5}$	$6.3279 \cdot 10^{-6}$	0.00029	$8.8457 \cdot 10^{-6}$	$5.3260 \cdot 10^{-7}$	0.00001	$1.1223 \cdot 10^{-6}$	$3.1561 \cdot 10^{-7}$
Liberia	0.04	0.00114	$4.7243 \cdot 10^{-6}$	$1.7030 \cdot 10^{-5}$	0.00039	$7.4866 \cdot 10^{-7}$	$2.0568 \cdot 10^{-6}$	0.00001	$1.5935 \cdot 10^{-6}$	$1.1127 \cdot 10^{-6}$
Malawi	0.04	0.00114	$1.5875 \cdot 10^{-5}$	$1.8870 \cdot 10^{-5}$	0.00039	$1.9747 \cdot 10^{-5}$	$3.8568 \cdot 10^{-6}$	0.00001	$3.0661 \cdot 10^{-7}$	$1.2127 \cdot 10^{-6}$
Mozambique	0.06	0.00171	$1.1367 \cdot 10^{-5}$	$1.0745 \cdot 10^{-5}$	0.00059	$1.0578 \cdot 10^{-5}$	$7.0359 \cdot 10^{-6}$	0.00001	$1.7357 \cdot 10^{-6}$	$1.3309 \cdot 10^{-6}$
Namibia	0.07	0.00199	$2.6409 \cdot 10^{-5}$	$5.6983 \cdot 10^{-6}$	0.00069	$4.0866 \cdot 10^{-6}$	$6.2740 \cdot 10^{-6}$	0.00002	$5.1817 \cdot 10^{-7}$	$7.0248 \cdot 10^{-7}$
Nigeria	0.82	0.02334	$1.7739 \cdot 10^{-5}$	$3.6643 \cdot 10^{-5}$	0.00803	$6.7233 \cdot 10^{-5}$	$1.5772 \cdot 10^{-5}$	0.00018	$4.5633 \cdot 10^{-7}$	$4.1300 \cdot 10^{-7}$
Sierra Leone	0.06	0.00171	$1.0698 \cdot 10^{-6}$	$1.9555 \cdot 10^{-6}$	0.00059	$6.7742 \cdot 10^{-6}$	$1.3736 \cdot 10^{-5}$	0.00001	$1.3577 \cdot 10^{-6}$	$1.6691 \cdot 10^{-6}$
South Africa	0.87	0.02477	$5.2781 \cdot 10^{-5}$	$2.5461 \cdot 10^{-5}$	0.00852	$2.5260 \cdot 10^{-5}$	$8.7780 \cdot 10^{-6}$	0.00019	$3.7148 \cdot 10^{-6}$	$2.0397 \cdot 10^{-6}$
Sudan	0.09	0.00256	$1.3503 \cdot 10^{-5}$	$2.5168 \cdot 10^{-6}$	0.00088	$3.6121 \cdot 10^{-6}$	$6.1933 \cdot 10^{-6}$	0.00002	$1.0591 \cdot 10^{-6}$	$2.0457 \cdot 10^{-6}$
Swaziland	0.03	0.00085	$1.2768 \cdot 10^{-5}$	$2.7900 \cdot 10^{-8}$	0.00029	$7.3605 \cdot 10^{-7}$	$1.9326 \cdot 10^{-6}$	0.00001	$6.1968 \cdot 10^{-7}$	$8.4390 \cdot 10^{-8}$
Tanzania	0.10	0.00285	$1.8052 \cdot 10^{-5}$	$8.6744 \cdot 10^{-6}$	0.00098	$4.9763 \cdot 10^{-6}$	$8.0240 \cdot 10^{-7}$	0.00002	$6.5650 \cdot 10^{-8}$	$1.6830 \cdot 10^{-6}$
Uganda	0.09	0.00256	$1.6901 \cdot 10^{-5}$	$1.9317 \cdot 10^{-5}$	0.00088	$1.1686 \cdot 10^{-5}$	$1.0670 \cdot 10^{-7}$	0.00002	$1.9596 \cdot 10^{-6}$	$5.4330 \cdot 10^{-8}$
Zambia	0.24	0.00683	$1.5436 \cdot 10^{-5}$	$3.4920 \cdot 10^{-6}$	0.00235	$1.2276 \cdot 10^{-5}$	$6.0470 \cdot 10^{-6}$	0.00005	$1.9475 \cdot 10^{-6}$	$4.9717 \cdot 10^{-7}$
Zimbabwe	0.17	0.00484	$1.3733 \cdot 10^{-5}$	$4.5481 \cdot 10^{-5}$	0.00167	$2.1844 \cdot 10^{-6}$	$1.8556 \cdot 10^{-5}$	0.00004	$7.3112 \cdot 10^{-7}$	$1.1159 \cdot 10^{-6}$
Brunei Darussalam	0.08	0.00228	$2.4186 \cdot 10^{-6}$	$6.6675 \cdot 10^{-6}$	0.00078	$1.5799 \cdot 10^{-5}$	$9.6892 \cdot 10^{-6}$	0.00002	$2.3299 \cdot 10^{-7}$	$6.4329 \cdot 10^{-7}$
Cambodia	0.05	0.00142	$4.3333 \cdot 10^{-6}$	$1.3742 \cdot 10^{-5}$	0.00049	$1.4995 \cdot 10^{-6}$	$3.6067 \cdot 10^{-6}$	0.00001	$3.8109 \cdot 10^{-7}$	$1.2243 \cdot 10^{-6}$
Fiji	0.04	0.00114	$2.7954 \cdot 10^{-6}$	$3.1910 \cdot 10^{-6}$	0.00039	$9.6457 \cdot 10^{-6}$	$4.6420 \cdot 10^{-6}$	0.00001	$9.7378 \cdot 10^{-7}$	$1.3711 \cdot 10^{-6}$
Indonesia	0.97	0.02761	$6.1217 \cdot 10^{-5}$	$5.4451 \cdot 10^{-5}$	0.00951	$4.8173 \cdot 10^{-5}$	$5.1515 \cdot 10^{-5}$	0.00021	$2.6963 \cdot 10^{-6}$	$4.7732 \cdot 10^{-6}$
Lao People's	0.04	0.00114	$1.1204 \cdot 10^{-5}$	$1.1091 \cdot 10^{-5}$	0.00039	$2.0146 \cdot 10^{-5}$	$6.4200 \cdot 10^{-7}$	0.00001	$2.3744 \cdot 10^{-6}$	$6.2892 \cdot 10^{-7}$
Malaysia	0.70	0.01992	$5.5399 \cdot 10^{-5}$	$2.7619 \cdot 10^{-5}$	0.00686	$2.5895 \cdot 10^{-5}$	$1.4486 \cdot 10^{-5}$	0.00015	$4.8640 \cdot 10^{-6}$	$1.2442 \cdot 10^{-6}$
Myanmar	0.13	0.00370	$1.6922 \cdot 10^{-5}$	$3.0445 \cdot 10^{-6}$	0.00127	$1.2781 \cdot 10^{-5}$	$2.2600 \cdot 10^{-6}$	0.00003	$3.4073 \cdot 10^{-6}$	$1.1121 \cdot 10^{-6}$
Nepal	0.04	0.00114	$4.8957 \cdot 10^{-6}$	$1.3309 \cdot 10^{-5}$	0.00039	$1.4546 \cdot 10^{-5}$	$3.2580 \cdot 10^{-6}$	0.00001	$1.6735 \cdot 10^{-6}$	$1.2289 \cdot 10^{-6}$
Singapore	0.41	0.01167	$5.4115 \cdot 10^{-5}$	$6.6615 \cdot 10^{-5}$	0.00402	$1.6575 \cdot 10^{-7}$	$6.0300 \cdot 10^{-6}$	0.00009	$2.0263 \cdot 10^{-6}$	$1.4949 \cdot 10^{-7}$
Thailand	0.51	0.01452	$3.6875 \cdot 10^{-6}$	$5.8246 \cdot 10^{-6}$	0.00500	$1.8560 \cdot 10^{-5}$	$7.4460 \cdot 10^{-6}$	0.00011	$1.0678 \cdot 10^{-5}$	$4.2948 \cdot 10^{-6}$
Tonga	0.01	0.00028	$7.8133 \cdot 10^{-7}$	$6.1798 \cdot 10^{-6}$	0.00010	$3.7791 \cdot 10^{-6}$	$1.2236 \cdot 10^{-7}$	0.00000	$7.0456 \cdot 10^{-7}$	$3.7420 \cdot 10^{-9}$
Vietnam	0.16	0.00455	$3.2983 \cdot 10^{-5}$	$5.1811 \cdot 10^{-5}$	0.00157	$1.4681 \cdot 10^{-5}$	$8.4940 \cdot 10^{-6}$	0.00004	$8.8372 \cdot 10^{-7}$	$1.6306 \cdot 10^{-7}$
Bahrain	0.07	0.00199	$2.7742 \cdot 10^{-6}$	$8.6836 \cdot 10^{-6}$	0.00069	$1.1901 \cdot 10^{-5}$	$1.1010 \cdot 10^{-5}$	0.00002	$3.4341 \cdot 10^{-7}$	$2.5579 \cdot 10^{-7}$
Egypt	0.45	0.01281	$4.8301 \cdot 10^{-5}$	$3.0436 \cdot 10^{-5}$	0.00442	$1.4598 \cdot 10^{-5}$	$1.3015 \cdot 10^{-5}$	0.00010	$1.0661 \cdot 10^{-7}$	$5.7325 \cdot 10^{-6}$
Iraq	0.24	0.00683	$4.4763 \cdot 10^{-6}$	$3.2456 \cdot 10^{-5}$	0.00236	$7.1788 \cdot 10^{-6}$	$7.3770 \cdot 10^{-6}$	0.00005	$1.2599 \cdot 10^{-7}$	$1.7916 \cdot 10^{-6}$
Jordan	0.09	0.00256	$1.0918 \cdot 10^{-5}$	$6.3947 \cdot 10^{-6}$	0.00088	$7.1336 \cdot 10^{-6}$	$2.6517 \cdot 10^{-6}$	0.00002	$6.7409 \cdot 10^{-7}$	$1.5763 \cdot 10^{-7}$
Kuwait	0.65	0.01850	$8.7901 \cdot 10^{-5}$	$1.0715 \cdot 10^{-5}$	0.00638	$4.4424 \cdot 10^{-5}$	$1.5056 \cdot 10^{-5}$	0.00014	$2.1368 \cdot 10^{-6}$	$1.3023 \cdot 10^{-6}$
Lebanon	0.10	0.00285	$1.4528 \cdot 10^{-5}$	$2.8880 \cdot 10^{-7}$	0.00098	$3.7919 \cdot 10^{-5}$	$7.5056 \cdot 10^{-6}$	0.00002	$8.2072 \cdot 10^{-8}$	$9.3915 \cdot 10^{-7}$
Libya	0.53	0.01508	$3.3069 \cdot 10^{-5}$	$1.4005 \cdot 10^{-5}$	0.00520	$1.9810 \cdot 10^{-5}$	$1.2910 \cdot 10^{-5}$	0.00012	$3.7996 \cdot 10^{-6}$	$2.1153 \cdot 10^{-6}$
Maldives	0.02	0.00057	$9.6525 \cdot 10^{-6}$	$1.9502 \cdot 10^{-6}$	0.00020	$4.3344 \cdot 10^{-6}$	$6.7384 \cdot 10^{-6}$	0.00000	$4.1578 \cdot 10^{-7}$	$5.1380 \cdot 10^{-7}$
Oman	0.10	0.00285	$3.0628 \cdot 10^{-6}$	$2.0011 \cdot 10^{-5}$	0.00098	$9.2208 \cdot 10^{-6}$	$2.9440 \cdot 10^{-7}$	0.00002	$4.7222 \cdot 10^{-7}$	$3.5609 \cdot 10^{-6}$
Qatar	0.13	0.00370	$1.9264 \cdot 10^{-5}$	$5.0465 \cdot 10^{-6}$	0.00128	$1.4374 \cdot 10^{-5}$	$1.0000 \cdot 10^{-7}$	0.00003	$2.7798 \cdot 10^{-6}$	$1.3431 \cdot 10^{-6}$
Syrian Arab Republic	0.15	0.00427	$1.0453 \cdot 10^{-5}$	$2.8626 \cdot 10^{-5}$	0.00147	$2.7941 \cdot 10^{-6}$	$2.1530 \cdot 10^{-5}$	0.00003	$1.4007 \cdot 10^{-6}$	$1.6782 \cdot 10^{-6}$
United Arab Emirates	0.29	0.00825	$1.5807 \cdot 10^{-5}$	$2.0368 \cdot 10^{-5}$	0.00285	$3.4559 \cdot 10^{-5}$	$2.2410 \cdot 10^{-5}$	0.00006	$2.0753 \cdot 10^{-6}$	$1.0369 \cdot 10^{-6}$
Republic of Yemen	0.12	0.00341	$2.3567 \cdot 10^{-5}$	$2.4450 \cdot 10^{-5}$	0.00118	$9.6326 \cdot 10^{-6}$	$3.2100 \cdot 10^{-6}$	0.00003	$3.2324 \cdot 10^{-6}$	$3.5017 \cdot 10^{-7}$
China	2.94	0.08362	$2.1493 \cdot 10^{-5}$	$5.0714 \cdot 10^{-5}$	0.02890	$1.5134 \cdot 10^{-5}$	$7.1500 \cdot 10^{-6}$	0.00067	$4.6546 \cdot 10^{-6}$	$4.5291 \cdot 10^{-6}$
Russia	2.75	0.07822	$5.2667 \cdot 10^{-5}$	$7.5487 \cdot 10^{-5}$	0.02706	$1.0856 \cdot 10^{-5}$	$3.8430 \cdot 10^{-5}$	0.00063	$2.5589 \cdot 10^{-6}$	$1.5642 \cdot 10^{-6}$
Azerbaijan	0.09	0.00256	$3.8809 \cdot 10^{-5}$	$1.0171 \cdot 10^{-6}$	0.00089	$1.4430 \cdot 10^{-5}$	$3.8779 \cdot 10^{-6}$	0.00002	$1.6997 \cdot 10^{-7}</$	

Country	Voting right	$q = 50\%$			$q = 70\%$			$q = 85\%$		
		BzO_i	Absolute error (st.)	Absolute error (SRS)	BzO_i	Absolute error (st.)	Absolute error (SRS)	BzO_i	Absolute error (st.)	Absolute error (SRS)
Algeria	0.59	0.01678	$2.0132 \cdot 10^{-5}$	$9.4073 \cdot 10^{-6}$	0.00581	$1.2190 \cdot 10^{-5}$	$7.7450 \cdot 10^{-6}$	0.00014	$5.0296 \cdot 10^{-6}$	$6.9536 \cdot 10^{-6}$
Ghana	0.18	0.00512	$1.2759 \cdot 10^{-5}$	$4.4513 \cdot 10^{-6}$	0.00177	$7.9150 \cdot 10^{-6}$	$1.7099 \cdot 10^{-5}$	0.00004	$2.2646 \cdot 10^{-7}$	$2.5332 \cdot 10^{-6}$
Iran	0.70	0.01991	$4.3900 \cdot 10^{-5}$	$6.2328 \cdot 10^{-5}$	0.00689	$9.1624 \cdot 10^{-7}$	$5.2370 \cdot 10^{-6}$	0.00016	$3.0209 \cdot 10^{-6}$	$7.7482 \cdot 10^{-6}$
Morocco	0.28	0.00796	$7.9009 \cdot 10^{-6}$	$1.3289 \cdot 10^{-5}$	0.00276	$4.9426 \cdot 10^{-6}$	$2.6479 \cdot 10^{-5}$	0.00007	$1.9003 \cdot 10^{-6}$	$1.0117 \cdot 10^{-6}$
Pakistan	0.49	0.01393	$2.8845 \cdot 10^{-5}$	$2.2976 \cdot 10^{-5}$	0.00482	$1.2314 \cdot 10^{-5}$	$1.5924 \cdot 10^{-5}$	0.00011	$1.2687 \cdot 10^{-6}$	$2.6504 \cdot 10^{-6}$
Tunisia	0.14	0.00398	$1.3289 \cdot 10^{-5}$	$1.1683 \cdot 10^{-5}$	0.00138	$2.9389 \cdot 10^{-6}$	$2.6280 \cdot 10^{-6}$	0.00003	$4.5912 \cdot 10^{-7}$	$1.1645 \cdot 10^{-6}$
Argentina	0.99	0.02814	$1.0318 \cdot 10^{-4}$	$8.0617 \cdot 10^{-5}$	0.00976	$2.3067 \cdot 10^{-5}$	$1.4357 \cdot 10^{-5}$	0.00023	$5.0647 \cdot 10^{-6}$	$1.7042 \cdot 10^{-6}$
Bolivia	0.09	0.00256	$6.8902 \cdot 10^{-6}$	$2.4865 \cdot 10^{-6}$	0.00089	$8.0596 \cdot 10^{-6}$	$5.4667 \cdot 10^{-6}$	0.00002	$6.8052 \cdot 10^{-7}$	$1.6161 \cdot 10^{-6}$
Chile	0.41	0.01166	$2.0601 \cdot 10^{-5}$	$5.8018 \cdot 10^{-5}$	0.00404	$2.1326 \cdot 10^{-5}$	$1.5595 \cdot 10^{-5}$	0.00010	$1.2943 \cdot 10^{-6}$	$3.2787 \cdot 10^{-6}$
Paraguay	0.06	0.00171	$3.4849 \cdot 10^{-7}$	$3.7509 \cdot 10^{-6}$	0.00059	$6.5174 \cdot 10^{-6}$	$1.0478 \cdot 10^{-5}$	0.00001	$1.2369 \cdot 10^{-6}$	$6.0410 \cdot 10^{-8}$
Peru	0.31	0.00881	$1.5517 \cdot 10^{-5}$	$5.3170 \cdot 10^{-5}$	0.00306	$1.6891 \cdot 10^{-6}$	$2.6660 \cdot 10^{-6}$	0.00007	$1.4154 \cdot 10^{-7}$	$2.3059 \cdot 10^{-7}$
Uruguay	0.15	0.00426	$2.2955 \cdot 10^{-5}$	$3.3930 \cdot 10^{-7}$	0.00148	$8.0893 \cdot 10^{-6}$	$7.2220 \cdot 10^{-6}$	0.00004	$9.6572 \cdot 10^{-7}$	$1.8275 \cdot 10^{-6}$
Benin	0.04	0.00114	$6.1824 \cdot 10^{-6}$	$1.0290 \cdot 10^{-5}$	0.00040	$1.2966 \cdot 10^{-5}$	$2.1572 \cdot 10^{-6}$	0.00001	$1.3137 \cdot 10^{-6}$	$8.0908 \cdot 10^{-7}$
Burkina Faso	0.04	0.00114	$2.0177 \cdot 10^{-6}$	$3.5104 \cdot 10^{-6}$	0.00040	$4.5644 \cdot 10^{-6}$	$3.8428 \cdot 10^{-6}$	0.00001	$1.8861 \cdot 10^{-6}$	$5.9092 \cdot 10^{-7}$
Cameroon	0.10	0.00284	$4.0506 \cdot 10^{-6}$	$5.4794 \cdot 10^{-6}$	0.00099	$7.8860 \cdot 10^{-6}$	$7.1326 \cdot 10^{-6}$	0.00003	$2.5277 \cdot 10^{-6}$	$1.7878 \cdot 10^{-6}$
Cape Verde	0.02	0.00057	$8.8423 \cdot 10^{-6}$	$9.5458 \cdot 10^{-6}$	0.00020	$8.2324 \cdot 10^{-6}$	$7.2288 \cdot 10^{-6}$	0.00001	$1.9325 \cdot 10^{-7}$	$2.0484 \cdot 10^{-7}$
Central African	0.04	0.00114	$5.2780 \cdot 10^{-6}$	$3.0896 \cdot 10^{-6}$	0.00040	$6.8647 \cdot 10^{-6}$	$6.2428 \cdot 10^{-6}$	0.00001	$1.7127 \cdot 10^{-6}$	$1.3091 \cdot 10^{-6}$
Chad	0.04	0.00114	$8.6165 \cdot 10^{-6}$	$3.0896 \cdot 10^{-6}$	0.00040	$1.1264 \cdot 10^{-5}$	$6.5572 \cdot 10^{-6}$	0.00001	$8.1354 \cdot 10^{-7}$	$2.0908 \cdot 10^{-7}$
Comoros	0.02	0.00057	$1.0570 \cdot 10^{-6}$	$2.5458 \cdot 10^{-6}$	0.00020	$4.1312 \cdot 10^{-6}$	$8.7120 \cdot 10^{-7}$	0.00001	$1.9071 \cdot 10^{-7}$	$2.9516 \cdot 10^{-7}$
Republic of Congo	0.05	0.00142	$9.3868 \cdot 10^{-6}$	$2.7620 \cdot 10^{-5}$	0.00049	$4.7681 \cdot 10^{-6}$	$2.8241 \cdot 10^{-6}$	0.00001	$1.1576 \cdot 10^{-7}$	$2.8934 \cdot 10^{-7}$
Côte d'Ivoire	0.16	0.00455	$1.2484 \cdot 10^{-5}$	$2.5650 \cdot 10^{-5}$	0.00158	$2.9829 \cdot 10^{-5}$	$2.2236 \cdot 10^{-5}$	0.00004	$2.9433 \cdot 10^{-7}$	$3.1959 \cdot 10^{-7}$
Djibouti	0.02	0.00057	$7.0565 \cdot 10^{-6}$	$1.6542 \cdot 10^{-6}$	0.00020	$2.0306 \cdot 10^{-6}$	$3.7712 \cdot 10^{-6}$	0.00001	$3.0937 \cdot 10^{-7}$	$1.1952 \cdot 10^{-6}$
Equatorial Guinea	0.03	0.00085	$6.0240 \cdot 10^{-6}$	$8.7181 \cdot 10^{-6}$	0.00030	$2.1034 \cdot 10^{-6}$	$5.8027 \cdot 10^{-6}$	0.00001	$1.2171 \cdot 10^{-6}$	$4.9313 \cdot 10^{-7}$
Gabon	0.08	0.00227	$3.0524 \cdot 10^{-6}$	$7.2387 \cdot 10^{-6}$	0.00079	$3.2715 \cdot 10^{-6}$	$5.6895 \cdot 10^{-6}$	0.00002	$1.5756 \cdot 10^{-6}$	$1.7867 \cdot 10^{-6}$
Guinea	0.06	0.00171	$1.6883 \cdot 10^{-5}$	$1.8529 \cdot 10^{-5}$	0.00059	$1.4596 \cdot 10^{-5}$	$5.6154 \cdot 10^{-6}$	0.00002	$5.3700 \cdot 10^{-7}$	$1.6879 \cdot 10^{-6}$
Guinea-Bissau	0.02	0.00057	$1.3636 \cdot 10^{-6}$	$2.5458 \cdot 10^{-6}$	0.00020	$1.0437 \cdot 10^{-5}$	$7.2880 \cdot 10^{-7}$	0.00001	$1.4093 \cdot 10^{-6}$	$5.9516 \cdot 10^{-7}$
Madagascar	0.07	0.00199	$1.3570 \cdot 10^{-6}$	$3.4144 \cdot 10^{-5}$	0.00069	$9.8385 \cdot 10^{-6}$	$5.5492 \cdot 10^{-6}$	0.00002	$2.4778 \cdot 10^{-6}$	$3.8712 \cdot 10^{-7}$
Mali	0.05	0.00142	$6.5921 \cdot 10^{-6}$	$1.0180 \cdot 10^{-5}$	0.00049	$6.6338 \cdot 10^{-7}$	$1.7241 \cdot 10^{-6}$	0.00001	$1.1639 \cdot 10^{-6}$	$2.1066 \cdot 10^{-7}$
Mauritania	0.04	0.00114	$4.7824 \cdot 10^{-6}$	$1.0010 \cdot 10^{-5}$	0.00040	$7.1663 \cdot 10^{-6}$	$2.1428 \cdot 10^{-6}$	0.00001	$1.4941 \cdot 10^{-8}$	$2.0909 \cdot 10^{-6}$
Mauritius	0.06	0.00171	$4.3820 \cdot 10^{-6}$	$1.2271 \cdot 10^{-5}$	0.00059	$1.2948 \cdot 10^{-6}$	$1.0185 \cdot 10^{-5}$	0.00002	$1.8761 \cdot 10^{-6}$	$1.8879 \cdot 10^{-6}$
Niger	0.04	0.00114	$4.8829 \cdot 10^{-6}$	$7.6896 \cdot 10^{-6}$	0.00040	$9.5650 \cdot 10^{-6}$	$5.1428 \cdot 10^{-6}$	0.00001	$5.8596 \cdot 10^{-7}$	$9.9092 \cdot 10^{-7}$
Rwanda	0.05	0.00142	$8.4083 \cdot 10^{-6}$	$1.7320 \cdot 10^{-5}$	0.00049	$8.6553 \cdot 10^{-7}$	$5.2759 \cdot 10^{-6}$	0.00001	$1.1831 \cdot 10^{-6}$	$3.8934 \cdot 10^{-7}$
Sao Tomé	0.02	0.00057	$8.8430 \cdot 10^{-6}$	$3.1542 \cdot 10^{-6}$	0.00020	$1.5031 \cdot 10^{-5}$	$4.4712 \cdot 10^{-6}$	0.00001	$1.0717 \cdot 10^{-7}$	$1.6048 \cdot 10^{-6}$
Senegal	0.09	0.00256	$3.6961 \cdot 10^{-7}$	$4.6860 \cdot 10^{-6}$	0.00089	$6.4004 \cdot 10^{-6}$	$1.1324 \cdot 10^{-5}$	0.00002	$1.6676 \cdot 10^{-6}$	$6.8696 \cdot 10^{-7}$
Togo	0.05	0.00142	$1.7687 \cdot 10^{-5}$	$4.9202 \cdot 10^{-6}$	0.00049	$3.1331 \cdot 10^{-6}$	$4.7759 \cdot 10^{-6}$	0.00001	$1.1964 \cdot 10^{-7}$	$4.8934 \cdot 10^{-7}$

Table A.3: Absolute errors for the weighted majority game in the Banzhaf-Owen value estimation.

A.1 Estimated variances

In what follows, we display the estimated variances obtained for estimating the Banzhaf-Owen value for the weighted majority game.

Estimated variances	$q = 50\%$		$q = 70\%$		$q = 85\%$	
	St. sampling	SRS_{Sw}	St. sampling	SRS_{Sw}	St. sampling	SRS_{Sw}
United States	$9.7387 \cdot 10^{-9}$	$2.2829 \cdot 10^{-8}$	$3.2890 \cdot 10^{-9}$	$9.0020 \cdot 10^{-9}$	$6.2145 \cdot 10^{-11}$	$1.1542 \cdot 10^{-10}$
Japan	$1.3515 \cdot 10^{-8}$	$1.4440 \cdot 10^{-8}$	$3.8837 \cdot 10^{-9}$	$5.5393 \cdot 10^{-9}$	$6.4617 \cdot 10^{-11}$	$1.0460 \cdot 10^{-10}$
Germany	$1.3298 \cdot 10^{-8}$	$1.4168 \cdot 10^{-8}$	$3.8579 \cdot 10^{-9}$	$5.4283 \cdot 10^{-9}$	$6.4303 \cdot 10^{-11}$	$1.0560 \cdot 10^{-10}$
France	$1.1516 \cdot 10^{-8}$	$1.2124 \cdot 10^{-8}$	$3.4983 \cdot 10^{-9}$	$4.5705 \cdot 10^{-9}$	$6.3856 \cdot 10^{-11}$	$9.6527 \cdot 10^{-11}$
United Kingdom	$1.1513 \cdot 10^{-8}$	$1.2118 \cdot 10^{-8}$	$3.4932 \cdot 10^{-9}$	$4.5619 \cdot 10^{-9}$	$6.4253 \cdot 10^{-11}$	$9.6098 \cdot 10^{-11}$
Austria	$2.3853 \cdot 10^{-9}$	$2.4157 \cdot 10^{-9}$	$7.9528 \cdot 10^{-10}$	$8.2521 \cdot 10^{-10}$	$1.4766 \cdot 10^{-11}$	$1.5298 \cdot 10^{-11}$
Belarus	$5.4028 \cdot 10^{-10}$	$5.3986 \cdot 10^{-10}$	$1.8322 \cdot 10^{-10}$	$1.8333 \cdot 10^{-10}$	$3.6169 \cdot 10^{-12}$	$3.4699 \cdot 10^{-12}$
Belgium	$5.5638 \cdot 10^{-9}$	$5.7054 \cdot 10^{-9}$	$1.7808 \cdot 10^{-9}$	$2.0142 \cdot 10^{-9}$	$3.0648 \cdot 10^{-11}$	$3.7056 \cdot 10^{-11}$
Czech Republic	$1.0997 \cdot 10^{-9}$	$1.1033 \cdot 10^{-9}$	$3.6969 \cdot 10^{-10}$	$3.7578 \cdot 10^{-10}$	$6.9971 \cdot 10^{-12}$	$7.1195 \cdot 10^{-12}$
Hungary	$1.3737 \cdot 10^{-9}$	$1.3807 \cdot 10^{-9}$	$4.6070 \cdot 10^{-10}$	$4.6811 \cdot 10^{-10}$	$8.4748 \cdot 10^{-12}$	$8.7992 \cdot 10^{-12}$
Kazakhstan	$5.1304 \cdot 10^{-10}$	$5.0852 \cdot 10^{-10}$	$1.6734 \cdot 10^{-10}$	$1.7268 \cdot 10^{-10}$	$2.8679 \cdot 10^{-12}$	$3.7299 \cdot 10^{-12}$
Luxembourg	$3.9842 \cdot 10^{-10}$	$3.9767 \cdot 10^{-10}$	$1.3363 \cdot 10^{-10}$	$1.3463 \cdot 10^{-10}$	$2.7772 \cdot 10^{-12}$	$2.6499 \cdot 10^{-12}$
Slovak Republic	$5.0921 \cdot 10^{-10}$	$5.0684 \cdot 10^{-10}$	$1.6467 \cdot 10^{-10}$	$1.7388 \cdot 10^{-10}$	$2.9717 \cdot 10^{-12}$	$3.0699 \cdot 10^{-12}$
Slovenia	$3.3898 \cdot 10^{-10}$	$3.4174 \cdot 10^{-10}$	$1.1554 \cdot 10^{-10}$	$1.1369 \cdot 10^{-10}$	$2.1969 \cdot 10^{-12}$	$2.2100 \cdot 10^{-12}$
Turkey	$1.2824 \cdot 10^{-9}$	$1.2985 \cdot 10^{-9}$	$4.2986 \cdot 10^{-10}$	$4.3971 \cdot 10^{-10}$	$8.2206 \cdot 10^{-12}$	$8.0794 \cdot 10^{-12}$
Armenia	$1.4222 \cdot 10^{-10}$	$1.4424 \cdot 10^{-10}$	$4.7203 \cdot 10^{-11}$	$4.9246 \cdot 10^{-11}$	$8.9578 \cdot 10^{-13}$	$1.0900 \cdot 10^{-12}$
Bosnia and Herzegovina	$2.5550 \cdot 10^{-10}$	$2.5707 \cdot 10^{-10}$	$8.6846 \cdot 10^{-11}$	$8.7354 \cdot 10^{-11}$	$1.5593 \cdot 10^{-12}$	$1.8400 \cdot 10^{-12}$
Bulgaria	$8.7485 \cdot 10^{-10}$	$8.7241 \cdot 10^{-10}$	$2.9720 \cdot 10^{-10}$	$2.9810 \cdot 10^{-10}$	$5.4831 \cdot 10^{-12}$	$5.8497 \cdot 10^{-12}$
Croatia	$5.0708 \cdot 10^{-10}$	$5.1008 \cdot 10^{-10}$	$1.7285 \cdot 10^{-10}$	$1.7312 \cdot 10^{-10}$	$3.1816 \cdot 10^{-12}$	$3.3199 \cdot 10^{-12}$
Cyprus	$2.3073 \cdot 10^{-10}$	$2.2557 \cdot 10^{-10}$	$7.4437 \cdot 10^{-11}$	$7.9028 \cdot 10^{-11}$	$1.3521 \cdot 10^{-12}$	$1.5800 \cdot 10^{-12}$
Georgia	$2.2691 \cdot 10^{-10}$	$2.2826 \cdot 10^{-10}$	$7.4078 \cdot 10^{-11}$	$7.6432 \cdot 10^{-11}$	$1.5875 \cdot 10^{-12}$	$1.5900 \cdot 10^{-12}$
Israel	$1.2292 \cdot 10^{-9}$	$1.2447 \cdot 10^{-9}$	$4.1829 \cdot 10^{-10}$	$4.2477 \cdot 10^{-10}$	$7.9198 \cdot 10^{-12}$	$8.4193 \cdot 10^{-12}$
Macedonia	$1.1600 \cdot 10^{-10}$	$1.1328 \cdot 10^{-10}$	$3.8561 \cdot 10^{-11}$	$3.9055 \cdot 10^{-11}$	$7.0739 \cdot 10^{-13}$	$6.5000 \cdot 10^{-13}$
Moldova	$1.9841 \cdot 10^{-10}$	$1.9953 \cdot 10^{-10}$	$6.7430 \cdot 10^{-11}$	$6.8293 \cdot 10^{-11}$	$1.3317 \cdot 10^{-12}$	$1.3800 \cdot 10^{-12}$
The Netherlands	$6.1727 \cdot 10^{-9}$	$6.3621 \cdot 10^{-9}$	$1.9841 \cdot 10^{-9}$	$2.2518 \cdot 10^{-9}$	$3.5054 \cdot 10^{-11}$	$4.2802 \cdot 10^{-11}$
Romania	$1.3731 \cdot 10^{-9}$	$1.3733 \cdot 10^{-9}$	$4.6017 \cdot 10^{-10}$	$4.7284 \cdot 10^{-10}$	$9.3715 \cdot 10^{-12}$	$9.1992 \cdot 10^{-12}$
Ukraine	$1.7777 \cdot 10^{-9}$	$1.7943 \cdot 10^{-9}$	$5.9629 \cdot 10^{-10}$	$6.2037 \cdot 10^{-10}$	$1.1628 \cdot 10^{-11}$	$1.1949 \cdot 10^{-11}$

Table A.4: Estimated variances for the weighted majority game in the Banzhaf-Owen value estimation.

Estimated variances	$q = 50\%$		$q = 70\%$		$q = 85\%$	
Country	St. sampling	SRS_{sw}	St. sampling	SRS_{sw}	St. sampling	SRS_{sw}
Costa Rica	$2.5596 \cdot 10^{-10}$	$2.5542 \cdot 10^{-10}$	$8.1709 \cdot 10^{-11}$	$8.8342 \cdot 10^{-11}$	$1.4902 \cdot 10^{-12}$	$1.7400 \cdot 10^{-12}$
El Salvador	$2.5715 \cdot 10^{-10}$	$2.5935 \cdot 10^{-10}$	$8.5125 \cdot 10^{-11}$	$8.9500 \cdot 10^{-11}$	$1.6687 \cdot 10^{-12}$	$1.9500 \cdot 10^{-12}$
Guatemala	$3.1357 \cdot 10^{-10}$	$3.1189 \cdot 10^{-10}$	$1.0694 \cdot 10^{-10}$	$1.0669 \cdot 10^{-10}$	$2.2390 \cdot 10^{-12}$	$2.5199 \cdot 10^{-12}$
Honduras	$1.9707 \cdot 10^{-10}$	$1.9641 \cdot 10^{-10}$	$6.5115 \cdot 10^{-11}$	$7.0161 \cdot 10^{-11}$	$1.2125 \cdot 10^{-12}$	$1.4400 \cdot 10^{-12}$
Mexico	$3.2693 \cdot 10^{-9}$	$3.3044 \cdot 10^{-9}$	$1.0865 \cdot 10^{-9}$	$1.1540 \cdot 10^{-9}$	$2.2276 \cdot 10^{-11}$	$2.4214 \cdot 10^{-11}$
Nicaragua	$1.9948 \cdot 10^{-10}$	$2.0197 \cdot 10^{-10}$	$6.5686 \cdot 10^{-11}$	$6.7454 \cdot 10^{-11}$	$1.2219 \cdot 10^{-12}$	$1.2400 \cdot 10^{-12}$
Spain	$3.8232 \cdot 10^{-9}$	$3.8782 \cdot 10^{-9}$	$1.2709 \cdot 10^{-9}$	$1.3660 \cdot 10^{-9}$	$2.5403 \cdot 10^{-11}$	$2.8162 \cdot 10^{-11}$
Venezuela	$3.3587 \cdot 10^{-9}$	$3.4065 \cdot 10^{-9}$	$1.1144 \cdot 10^{-9}$	$1.1866 \cdot 10^{-9}$	$2.2983 \cdot 10^{-11}$	$2.5084 \cdot 10^{-11}$
Albania	$8.6262 \cdot 10^{-11}$	$8.5696 \cdot 10^{-11}$	$3.0309 \cdot 10^{-11}$	$2.9182 \cdot 10^{-11}$	$6.9849 \cdot 10^{-13}$	$7.7999 \cdot 10^{-13}$
Greece	$1.0945 \cdot 10^{-9}$	$1.0926 \cdot 10^{-9}$	$3.7821 \cdot 10^{-10}$	$3.8228 \cdot 10^{-10}$	$8.3292 \cdot 10^{-12}$	$9.2791 \cdot 10^{-12}$
Italy	$8.1345 \cdot 10^{-9}$	$8.4302 \cdot 10^{-9}$	$2.5879 \cdot 10^{-9}$	$3.0787 \cdot 10^{-9}$	$5.0389 \cdot 10^{-11}$	$6.5457 \cdot 10^{-11}$
Malta	$1.6895 \cdot 10^{-10}$	$1.6919 \cdot 10^{-10}$	$5.8973 \cdot 10^{-11}$	$5.8716 \cdot 10^{-11}$	$1.0664 \cdot 10^{-12}$	$1.3200 \cdot 10^{-12}$
Portugal	$1.1464 \cdot 10^{-9}$	$1.1565 \cdot 10^{-9}$	$3.9133 \cdot 10^{-10}$	$4.0021 \cdot 10^{-10}$	$8.7530 \cdot 10^{-12}$	$9.4991 \cdot 10^{-12}$
San Marino	$2.8520 \cdot 10^{-11}$	$2.7952 \cdot 10^{-11}$	$1.0184 \cdot 10^{-11}$	$9.9690 \cdot 10^{-12}$	$1.8985 \cdot 10^{-13}$	$2.3000 \cdot 10^{-13}$
Antigua and Barbuda	$5.6866 \cdot 10^{-11}$	$5.6448 \cdot 10^{-11}$	$1.6642 \cdot 10^{-11}$	$1.9546 \cdot 10^{-11}$	$3.6928 \cdot 10^{-13}$	$5.7000 \cdot 10^{-13}$
The Bahamas	$1.9784 \cdot 10^{-10}$	$2.0046 \cdot 10^{-10}$	$6.8532 \cdot 10^{-11}$	$6.9192 \cdot 10^{-11}$	$1.4414 \cdot 10^{-12}$	$1.6400 \cdot 10^{-12}$
Barbados	$1.1231 \cdot 10^{-10}$	$1.1345 \cdot 10^{-10}$	$3.9424 \cdot 10^{-11}$	$3.9704 \cdot 10^{-11}$	$8.8750 \cdot 10^{-13}$	$9.4999 \cdot 10^{-13}$
Belize	$5.6957 \cdot 10^{-11}$	$5.6998 \cdot 10^{-11}$	$1.6611 \cdot 10^{-11}$	$1.9806 \cdot 10^{-11}$	$2.8950 \cdot 10^{-13}$	$4.2000 \cdot 10^{-13}$
Canada	$7.4329 \cdot 10^{-9}$	$7.6784 \cdot 10^{-9}$	$2.3904 \cdot 10^{-9}$	$2.7851 \cdot 10^{-9}$	$4.8954 \cdot 10^{-11}$	$6.1662 \cdot 10^{-11}$
Dominica	$5.6418 \cdot 10^{-11}$	$5.7287 \cdot 10^{-11}$	$1.6202 \cdot 10^{-11}$	$1.9616 \cdot 10^{-11}$	$3.1944 \cdot 10^{-13}$	$4.8000 \cdot 10^{-13}$
Grenada	$5.6397 \cdot 10^{-11}$	$5.6668 \cdot 10^{-11}$	$1.7220 \cdot 10^{-11}$	$1.9526 \cdot 10^{-11}$	$3.6926 \cdot 10^{-13}$	$5.3000 \cdot 10^{-13}$
Ireland	$1.1216 \cdot 10^{-9}$	$1.1300 \cdot 10^{-9}$	$3.8677 \cdot 10^{-10}$	$3.9189 \cdot 10^{-10}$	$9.3662 \cdot 10^{-12}$	$8.9992 \cdot 10^{-12}$
Jamaica	$3.9885 \cdot 10^{-10}$	$3.9543 \cdot 10^{-10}$	$1.3828 \cdot 10^{-10}$	$1.3742 \cdot 10^{-10}$	$3.0517 \cdot 10^{-12}$	$3.2599 \cdot 10^{-12}$
St Kitts and Nevis	$5.7266 \cdot 10^{-11}$	$5.7667 \cdot 10^{-11}$	$1.6801 \cdot 10^{-11}$	$1.9216 \cdot 10^{-11}$	$2.6957 \cdot 10^{-13}$	$4.7000 \cdot 10^{-13}$
St Lucia	$5.6517 \cdot 10^{-11}$	$5.6558 \cdot 10^{-11}$	$1.6731 \cdot 10^{-11}$	$2.0296 \cdot 10^{-11}$	$2.5960 \cdot 10^{-13}$	$3.6000 \cdot 10^{-13}$
St Vincent	$5.5550 \cdot 10^{-11}$	$5.6338 \cdot 10^{-11}$	$1.6272 \cdot 10^{-11}$	$1.9186 \cdot 10^{-11}$	$2.8938 \cdot 10^{-13}$	$5.6000 \cdot 10^{-13}$
Denmark	$2.1256 \cdot 10^{-9}$	$2.1478 \cdot 10^{-9}$	$7.1726 \cdot 10^{-10}$	$7.4998 \cdot 10^{-10}$	$1.4991 \cdot 10^{-11}$	$1.6677 \cdot 10^{-11}$
Estonia	$1.1283 \cdot 10^{-10}$	$1.1396 \cdot 10^{-10}$	$3.8800 \cdot 10^{-11}$	$3.9744 \cdot 10^{-11}$	$9.5577 \cdot 10^{-13}$	$9.9999 \cdot 10^{-13}$
Finland	$1.6444 \cdot 10^{-9}$	$1.6594 \cdot 10^{-9}$	$5.5722 \cdot 10^{-10}$	$5.7581 \cdot 10^{-10}$	$1.1804 \cdot 10^{-11}$	$1.3018 \cdot 10^{-11}$
Iceland	$1.9939 \cdot 10^{-10}$	$2.0071 \cdot 10^{-10}$	$6.8035 \cdot 10^{-11}$	$6.8174 \cdot 10^{-11}$	$1.3334 \cdot 10^{-12}$	$1.5200 \cdot 10^{-12}$
Latvia	$1.9698 \cdot 10^{-10}$	$2.0148 \cdot 10^{-10}$	$6.6332 \cdot 10^{-11}$	$6.7914 \cdot 10^{-11}$	$1.3125 \cdot 10^{-12}$	$1.5200 \cdot 10^{-12}$
Lithuania	$2.2509 \cdot 10^{-10}$	$2.2573 \cdot 10^{-10}$	$7.7850 \cdot 10^{-11}$	$7.7380 \cdot 10^{-11}$	$1.8854 \cdot 10^{-12}$	$1.6100 \cdot 10^{-12}$
Norway	$2.1480 \cdot 10^{-9}$	$2.1814 \cdot 10^{-9}$	$7.2915 \cdot 10^{-10}$	$7.5366 \cdot 10^{-10}$	$1.5265 \cdot 10^{-11}$	$1.6567 \cdot 10^{-11}$
Sweden	$3.0141 \cdot 10^{-9}$	$3.0588 \cdot 10^{-9}$	$1.0165 \cdot 10^{-9}$	$1.0767 \cdot 10^{-9}$	$2.0512 \cdot 10^{-11}$	$2.3864 \cdot 10^{-11}$
Australia	$4.0183 \cdot 10^{-9}$	$4.0830 \cdot 10^{-9}$	$1.3407 \cdot 10^{-9}$	$1.4475 \cdot 10^{-9}$	$2.8861 \cdot 10^{-11}$	$3.2739 \cdot 10^{-11}$
Kiribati	$2.8249 \cdot 10^{-11}$	$2.8692 \cdot 10^{-11}$	$9.7536 \cdot 10^{-12}$	$1.0039 \cdot 10^{-11}$	$1.6985 \cdot 10^{-13}$	$2.6000 \cdot 10^{-13}$
Korea	$2.0954 \cdot 10^{-9}$	$2.1182 \cdot 10^{-9}$	$7.1001 \cdot 10^{-10}$	$7.3469 \cdot 10^{-10}$	$1.5604 \cdot 10^{-11}$	$1.6137 \cdot 10^{-11}$
Marshall Islands	$2.8249 \cdot 10^{-11}$	$2.8732 \cdot 10^{-11}$	$9.4542 \cdot 10^{-12}$	$9.9390 \cdot 10^{-12}$	$1.7959 \cdot 10^{-13}$	$1.6000 \cdot 10^{-13}$
Micronesia Federated	$2.8009 \cdot 10^{-11}$	$2.8392 \cdot 10^{-11}$	$8.8850 \cdot 10^{-12}$	$9.6591 \cdot 10^{-12}$	$2.0935 \cdot 10^{-13}$	$2.0000 \cdot 10^{-13}$
Mongolia	$1.1441 \cdot 10^{-10}$	$1.1456 \cdot 10^{-10}$	$3.9706 \cdot 10^{-11}$	$3.9205 \cdot 10^{-11}$	$8.3688 \cdot 10^{-13}$	$9.4999 \cdot 10^{-13}$
New Zealand	$1.1762 \cdot 10^{-9}$	$1.1850 \cdot 10^{-9}$	$3.9408 \cdot 10^{-10}$	$4.1223 \cdot 10^{-10}$	$8.7391 \cdot 10^{-12}$	$9.1592 \cdot 10^{-12}$
Palau	$2.8838 \cdot 10^{-11}$	$2.7832 \cdot 10^{-11}$	$9.1342 \cdot 10^{-12}$	$9.9990 \cdot 10^{-12}$	$1.9961 \cdot 10^{-13}$	$2.5000 \cdot 10^{-13}$
Papua New Guinea	$1.9792 \cdot 10^{-10}$	$1.9606 \cdot 10^{-10}$	$6.8448 \cdot 10^{-11}$	$6.7594 \cdot 10^{-11}$	$1.5892 \cdot 10^{-12}$	$1.3300 \cdot 10^{-12}$
Philippines	$1.1733 \cdot 10^{-9}$	$1.1785 \cdot 10^{-9}$	$3.9231 \cdot 10^{-10}$	$4.1235 \cdot 10^{-10}$	$8.4256 \cdot 10^{-12}$	$9.6091 \cdot 10^{-12}$
Samoa	$5.6385 \cdot 10^{-11}$	$5.5749 \cdot 10^{-11}$	$1.8508 \cdot 10^{-11}$	$1.9966 \cdot 10^{-11}$	$3.8936 \cdot 10^{-13}$	$5.0000 \cdot 10^{-13}$
Seychelles	$5.6076 \cdot 10^{-11}$	$5.7307 \cdot 10^{-11}$	$1.8069 \cdot 10^{-11}$	$1.9786 \cdot 10^{-11}$	$4.4876 \cdot 10^{-13}$	$4.7000 \cdot 10^{-13}$
Solomon Islands	$5.7375 \cdot 10^{-11}$	$5.8036 \cdot 10^{-11}$	$1.9257 \cdot 10^{-11}$	$1.9926 \cdot 10^{-11}$	$3.7927 \cdot 10^{-13}$	$4.1000 \cdot 10^{-13}$
Vanuatu	$5.6056 \cdot 10^{-11}$	$5.5769 \cdot 10^{-11}$	$1.7760 \cdot 10^{-11}$	$2.0056 \cdot 10^{-11}$	$3.2939 \cdot 10^{-13}$	$4.5000 \cdot 10^{-13}$
Saudi Arabia	$8.0430 \cdot 10^{-9}$	$8.3289 \cdot 10^{-9}$	$2.5869 \cdot 10^{-9}$	$3.0780 \cdot 10^{-9}$	$5.5678 \cdot 10^{-11}$	$7.1339 \cdot 10^{-11}$
Angola	$3.9581 \cdot 10^{-10}$	$3.9582 \cdot 10^{-10}$	$1.3596 \cdot 10^{-10}$	$1.3906 \cdot 10^{-10}$	$2.8317 \cdot 10^{-12}$	$2.9099 \cdot 10^{-12}$
Botswana	$1.1257 \cdot 10^{-10}$	$1.1316 \cdot 10^{-10}$	$3.7394 \cdot 10^{-11}$	$3.8845 \cdot 10^{-11}$	$8.0454 \cdot 10^{-13}$	$8.2999 \cdot 10^{-13}$
Burundi	$1.4209 \cdot 10^{-10}$	$1.4221 \cdot 10^{-10}$	$4.8750 \cdot 10^{-11}$	$4.9106 \cdot 10^{-11}$	$1.1130 \cdot 10^{-12}$	$1.1400 \cdot 10^{-12}$
Eritrea	$5.7263 \cdot 10^{-11}$	$5.6938 \cdot 10^{-11}$	$1.9496 \cdot 10^{-11}$	$1.9686 \cdot 10^{-11}$	$3.2931 \cdot 10^{-13}$	$5.1000 \cdot 10^{-13}$
Ethiopia	$1.9790 \cdot 10^{-10}$	$1.9826 \cdot 10^{-10}$	$6.8571 \cdot 10^{-11}$	$7.0011 \cdot 10^{-11}$	$1.4015 \cdot 10^{-12}$	$1.5100 \cdot 10^{-12}$
Gambia The	$8.6363 \cdot 10^{-11}$	$8.5137 \cdot 10^{-11}$	$2.8750 \cdot 10^{-11}$	$2.9411 \cdot 10^{-11}$	$6.1645 \cdot 10^{-13}$	$5.9000 \cdot 10^{-13}$
Kenya	$3.9747 \cdot 10^{-10}$	$3.9778 \cdot 10^{-10}$	$1.3264 \cdot 10^{-10}$	$1.3635 \cdot 10^{-10}$	$2.8197 \cdot 10^{-12}$	$3.0999 \cdot 10^{-12}$
Lesotho	$8.3103 \cdot 10^{-11}$	$8.4688 \cdot 10^{-11}$	$2.8467 \cdot 10^{-11}$	$2.9341 \cdot 10^{-11}$	$5.3763 \cdot 10^{-13}$	$6.2000 \cdot 10^{-13}$
Liberia	$1.1415 \cdot 10^{-10}$	$1.1543 \cdot 10^{-10}$	$3.9033 \cdot 10^{-11}$	$3.9395 \cdot 10^{-11}$	$7.0668 \cdot 10^{-13}$	$9.7999 \cdot 10^{-13}$
Malawi	$1.1209 \cdot 10^{-10}$	$1.1185 \cdot 10^{-10}$	$3.7144 \cdot 10^{-11}$	$3.9574 \cdot 10^{-11}$	$8.9631 \cdot 10^{-13}$	$9.8999 \cdot 10^{-13}$
Mozambique	$1.6925 \cdot 10^{-10}$	$1.7157 \cdot 10^{-10}$	$5.7541 \cdot 10^{-11}$	$5.9475 \cdot 10^{-11}$	$1.1238 \cdot 10^{-12}$	$1.1700 \cdot 10^{-12}$
Namibia	$1.9608 \cdot 10^{-10}$	$1.9829 \cdot 10^{-10}$	$6.7910 \cdot 10^{-11}$	$6.7934 \cdot 10^{-11}$	$1.4577 \cdot 10^{-12}$	$1.4500 \cdot 10^{-12}$
Nigeria	$2.2607 \cdot 10^{-9}$	$2.2834 \cdot 10^{-9}$	$7.7060 \cdot 10^{-10}$	$7.9530 \cdot 10^{-10}$	$1.6455 \cdot 10^{-11}$	$1.7627 \cdot 10^{-11}$
Sierra Leone	$1.7027 \cdot 10^{-10}$	$1.7030 \cdot 10^{-10}$	$5.7922 \cdot 10^{-11}$	$6.0144 \cdot 10^{-11}$	$1.4306 \cdot 10^{-12}$	$1.4700 \cdot 10^{-12}$
South Africa	$2.3868 \cdot 10^{-9}$	$2.4130 \cdot 10^{-9}$	$8.0588 \cdot 10^{-10}$	$8.4584 \cdot 10^{-10}$	$1.7131 \cdot 10^{-11}$	$1.8517 \cdot 10^{-11}$
Sudan	$2.5661 \cdot 10^{-10}$	$2.5577 \cdot 10^{-10}$	$8.7377 \cdot 10^{-11}$	$8.7513 \cdot 10^{-11}$	$1.8343 \cdot 10^{-12}$	$1.7500 \cdot 10^{-12}$
Swaziland	$8.6565 \cdot 10^{-11}$	$8.5317 \cdot 10^{-11}$	$2.9276 \cdot 10^{-11}$	$2.9202 \cdot 10^{-11}$	$5.8820 \cdot 10^{-13}$	$6.6000 \cdot 10^{-13}$
Tanzania	$2.8532 \cdot 10^{-10}$	$2.8470 \cdot 10^{-10}$	$9.7926 \cdot 10^{-11}$	$9.7834 \cdot 10^{-11}$	$2.1576 \cdot 10^{-12}$	$2.3400 \cdot 10^{-12}$
Uganda	$2.5358 \cdot 10^{-10}$	$2.5744 \cdot 10^{-10}$	$8.8884 \cdot 10^{-11}$	$8.8142 \cdot 10^{-11}$	$1.7472 \cdot 10^{-12}$	$1.9600 \cdot 10^{-12}$
Zambia	$6.7821 \cdot 10^{-10}$	$6.7882 \cdot 10^{-10}$	$2.3070 \cdot 10^{-10}$	$2.3526 \cdot 10^{-10}$	$4.9195 \cdot 10^{-12}$	$5.2597 \cdot 10^{-12}$
Zimbabwe	$4.8200 \cdot 10^{-10}$	$4.8605 \cdot 10^{-10}$	$1.6476 \cdot 10^{-10}$	$1.6449 \cdot 10^{-10}$	$3.7074 \cdot 10^{-12}$	$3.5799 \cdot 10^{-12}$
Brunei Darussalam	$2.2721 \cdot 10^{-10}$	$2.2651 \cdot 10^{-10}$	$7.9658 \cdot 10^{-11}$	$7.7440 \cdot 10^{-11}$	$1.7680 \cdot 10^{-12}$	$1.8200 \cdot 10^{-12}$
Cambodia	$1.4246 \cdot 10^{-10}$	$1.4347 \cdot 10^{-10}$	$4.9032 \cdot 10^{-11}$	$4.9366 \cdot 10^{-11}$	$1.0547 \cdot 10^{-12}$	$1.2200 \cdot 10^{-12}$
Fiji	$1.1338 \cdot 10^{-10}$	$1.1339 \cdot 10^{-10}$	$3.8176 \cdot 10^{-11}$	$3.8755 \cdot 10^{-11}$	$7.7723 \cdot 10^{-13}$	$7.4000 \cdot 10^{-13}$
Indonesia	$2.6495 \cdot 10^{-9}$	$2.6900 \cdot 10^{-9}$	$8.9170 \cdot 10^{-10}$	$9.3672 \cdot 10^{-10}$	$1.9667 \cdot 10^{-11}$	$2.1545 \cdot 10^{-11}$
Lao People's	$1.1478 \cdot 10^{-10}$	$1.1260 \cdot 10^{-10}$	$3.7131 \cdot 10^{-11}$	$3.9155 \cdot 10^{-11}$	$6.3717 \cdot 10^{-13}$	$9.3999 \cdot 10^{-13}$
Malaysia	$1.9427 \cdot 10^{-9}$	$1.9553 \cdot 10^{-9}$	$6.5572 \cdot 10^{-10}$	$6.8021 \cdot 10^{-10}$	$1.4911 \cdot 10^{-11}$	$1.5168 \cdot 10^{-11}$
Myanmar	$3.6978 \cdot 10^{-10}$	$3.6894 \cdot 10^{-10}$	$1.2526 \cdot 10^{-10}$	$1.2711 \cdot 10^{-10}$	$2.4845 \cdot 10^{-12}$	$2.9599 \cdot 10^{-12}$
Nepal	$1.1317 \cdot 10^{-10}$	$1.1504 \cdot 10^{-10}$	$3.7688 \cdot 10^{-11}$	$3.9544 \cdot 10^{-11}$	$7.0734 \cdot 10^{-13}$	$9.9999 \cdot 10^{-13}$
Singapore	$1.1534 \cdot 10^{-9}$	$1.1468 \cdot 10^{-9}$	$3.9239 \cdot 10^{-10}$	$4.0108 \cdot 10^{-10}$	$8.5142 \cdot 10^{-12}$	$9.0092 \cdot 10^{-12}$
Thailand	$1.4227 \cdot 10^{-9}$	$1.4299 \cdot 10^{-9}$	$4.8669 \cdot 10^{-10}$	$4.9688 \cdot 10^{-10}$	$9.7328 \cdot 10^{-12}$	$1.0729 \cdot 10^{-11}$
Tonga	$2.8379 \cdot 10^{-11}$	$2.7842 \cdot 10^{-11}$	$9.4143 \cdot 10^{-12}$	$9.8090 \cdot 10^{-12}$	$1.4978 \cdot 10^{-13}$	$2.2000 \cdot 10^{-13}$
Vietnam	$4.5576 \cdot 10^{-10}$	$4.5842 \cdot 10^{-10}$	$1.5690 \cdot 10^{-1$			

Estimated variances	$q = 50\%$		$q = 70\%$		$q = 85\%$	
Country	St. sampling	SRS_{sw}	St. sampling	SRS_{sw}	St. sampling	SRS_{sw}
Bahrain	$1.9892 \cdot 10^{-10}$	$1.9967 \cdot 10^{-10}$	$6.7225 \cdot 10^{-11}$	$6.9741 \cdot 10^{-11}$	$1.5683 \cdot 10^{-12}$	$1.5700 \cdot 10^{-12}$
Egypt	$1.2623 \cdot 10^{-9}$	$1.2613 \cdot 10^{-9}$	$4.2826 \cdot 10^{-10}$	$4.3830 \cdot 10^{-10}$	$9.5506 \cdot 10^{-12}$	$9.3291 \cdot 10^{-12}$
Iraq	$6.7605 \cdot 10^{-10}$	$6.8151 \cdot 10^{-10}$	$2.3279 \cdot 10^{-10}$	$2.3422 \cdot 10^{-10}$	$5.1841 \cdot 10^{-12}$	$5.1097 \cdot 10^{-12}$
Jordan	$2.5411 \cdot 10^{-10}$	$2.5609 \cdot 10^{-10}$	$8.8540 \cdot 10^{-11}$	$8.8502 \cdot 10^{-11}$	$1.9029 \cdot 10^{-12}$	$1.9700 \cdot 10^{-12}$
Kuwait	$1.7936 \cdot 10^{-9}$	$1.8146 \cdot 10^{-9}$	$6.1708 \cdot 10^{-10}$	$6.3212 \cdot 10^{-10}$	$1.3306 \cdot 10^{-11}$	$1.4128 \cdot 10^{-11}$
Lebanon	$2.8200 \cdot 10^{-10}$	$2.8379 \cdot 10^{-10}$	$9.3786 \cdot 10^{-11}$	$9.7285 \cdot 10^{-11}$	$2.1769 \cdot 10^{-12}$	$2.3000 \cdot 10^{-12}$
Libya	$1.4733 \cdot 10^{-9}$	$1.4869 \cdot 10^{-9}$	$5.0164 \cdot 10^{-10}$	$5.1602 \cdot 10^{-10}$	$1.1474 \cdot 10^{-11}$	$1.1439 \cdot 10^{-11}$
Maldives	$5.5906 \cdot 10^{-11}$	$5.7078 \cdot 10^{-11}$	$2.0034 \cdot 10^{-11}$	$2.0296 \cdot 10^{-11}$	$3.9909 \cdot 10^{-13}$	$3.9000 \cdot 10^{-13}$
Oman	$2.8040 \cdot 10^{-10}$	$2.8177 \cdot 10^{-10}$	$9.6620 \cdot 10^{-11}$	$9.8064 \cdot 10^{-11}$	$2.1413 \cdot 10^{-12}$	$1.8500 \cdot 10^{-12}$
Qatar	$3.6612 \cdot 10^{-10}$	$3.6808 \cdot 10^{-10}$	$1.2799 \cdot 10^{-10}$	$1.2742 \cdot 10^{-10}$	$2.5634 \cdot 10^{-12}$	$2.9999 \cdot 10^{-12}$
Syrian Arab Republic	$4.2535 \cdot 10^{-10}$	$4.2220 \cdot 10^{-10}$	$1.4559 \cdot 10^{-10}$	$1.4913 \cdot 10^{-10}$	$3.3998 \cdot 10^{-12}$	$3.1399 \cdot 10^{-12}$
United Arab Emirates	$8.1423 \cdot 10^{-10}$	$8.1646 \cdot 10^{-10}$	$2.7630 \cdot 10^{-10}$	$2.8151 \cdot 10^{-10}$	$6.4285 \cdot 10^{-12}$	$6.2796 \cdot 10^{-12}$
Republic of Yemen	$3.3753 \cdot 10^{-10}$	$3.3790 \cdot 10^{-10}$	$1.1596 \cdot 10^{-10}$	$1.1730 \cdot 10^{-10}$	$2.9345 \cdot 10^{-12}$	$2.6099 \cdot 10^{-12}$
China	$7.4108 \cdot 10^{-9}$	$7.6673 \cdot 10^{-9}$	$2.4006 \cdot 10^{-9}$	$2.8075 \cdot 10^{-9}$	$5.1852 \cdot 10^{-11}$	$6.6606 \cdot 10^{-11}$
Russia	$6.9866 \cdot 10^{-9}$	$7.2167 \cdot 10^{-9}$	$2.2734 \cdot 10^{-9}$	$2.6289 \cdot 10^{-9}$	$5.0187 \cdot 10^{-11}$	$6.3500 \cdot 10^{-11}$
Azerbaijan	$2.5892 \cdot 10^{-10}$	$2.5542 \cdot 10^{-10}$	$8.6623 \cdot 10^{-11}$	$8.8831 \cdot 10^{-11}$	$2.0643 \cdot 10^{-12}$	$1.8800 \cdot 10^{-12}$
Kyrgyz Republic	$1.4208 \cdot 10^{-10}$	$1.4136 \cdot 10^{-10}$	$4.6438 \cdot 10^{-11}$	$4.8546 \cdot 10^{-11}$	$9.2628 \cdot 10^{-13}$	$1.1600 \cdot 10^{-12}$
Poland	$1.7707 \cdot 10^{-9}$	$1.7935 \cdot 10^{-9}$	$6.1059 \cdot 10^{-10}$	$6.2577 \cdot 10^{-10}$	$1.4911 \cdot 10^{-11}$	$1.5718 \cdot 10^{-11}$
Switzerland	$4.2664 \cdot 10^{-9}$	$4.3365 \cdot 10^{-9}$	$1.4256 \cdot 10^{-9}$	$1.5554 \cdot 10^{-9}$	$3.1581 \cdot 10^{-11}$	$3.6517 \cdot 10^{-11}$
Tajikistan	$1.4198 \cdot 10^{-10}$	$1.4281 \cdot 10^{-10}$	$4.5913 \cdot 10^{-11}$	$4.9456 \cdot 10^{-11}$	$1.0460 \cdot 10^{-12}$	$1.0800 \cdot 10^{-12}$
Turkmenistan	$1.4015 \cdot 10^{-10}$	$1.4137 \cdot 10^{-10}$	$4.5418 \cdot 10^{-11}$	$4.8047 \cdot 10^{-11}$	$9.5668 \cdot 10^{-13}$	$1.3400 \cdot 10^{-12}$
Uzbekistan	$3.9692 \cdot 10^{-10}$	$3.9590 \cdot 10^{-10}$	$1.3587 \cdot 10^{-10}$	$1.3882 \cdot 10^{-10}$	$3.1150 \cdot 10^{-12}$	$3.4199 \cdot 10^{-12}$
Brazil	$3.7916 \cdot 10^{-9}$	$3.8511 \cdot 10^{-9}$	$1.2686 \cdot 10^{-9}$	$1.3624 \cdot 10^{-9}$	$2.8589 \cdot 10^{-11}$	$3.2519 \cdot 10^{-11}$
Colombia	$1.0339 \cdot 10^{-9}$	$1.0404 \cdot 10^{-9}$	$3.5600 \cdot 10^{-10}$	$3.6468 \cdot 10^{-10}$	$8.8315 \cdot 10^{-12}$	$8.4293 \cdot 10^{-12}$
Dominican Republic	$3.1153 \cdot 10^{-10}$	$3.1434 \cdot 10^{-10}$	$1.0387 \cdot 10^{-10}$	$1.0810 \cdot 10^{-10}$	$2.1908 \cdot 10^{-12}$	$2.5099 \cdot 10^{-12}$
Ecuador	$4.2513 \cdot 10^{-10}$	$4.2322 \cdot 10^{-10}$	$1.4542 \cdot 10^{-10}$	$1.4682 \cdot 10^{-10}$	$3.2929 \cdot 10^{-12}$	$3.3299 \cdot 10^{-12}$
Guyana	$1.3992 \cdot 10^{-10}$	$1.4154 \cdot 10^{-10}$	$4.7940 \cdot 10^{-11}$	$5.1394 \cdot 10^{-11}$	$1.0950 \cdot 10^{-12}$	$1.3800 \cdot 10^{-12}$
Haiti	$1.1343 \cdot 10^{-10}$	$1.1406 \cdot 10^{-10}$	$3.9942 \cdot 10^{-11}$	$4.0564 \cdot 10^{-11}$	$9.6595 \cdot 10^{-13}$	$1.1400 \cdot 10^{-12}$
Panama	$3.1197 \cdot 10^{-10}$	$3.0855 \cdot 10^{-10}$	$1.0374 \cdot 10^{-10}$	$1.0818 \cdot 10^{-10}$	$2.5241 \cdot 10^{-12}$	$2.6499 \cdot 10^{-12}$
Suriname	$1.4255 \cdot 10^{-10}$	$1.4256 \cdot 10^{-10}$	$4.8026 \cdot 10^{-11}$	$4.8267 \cdot 10^{-11}$	$1.0937 \cdot 10^{-12}$	$1.2200 \cdot 10^{-12}$
Trinidad and Tobago	$4.8099 \cdot 10^{-10}$	$4.8161 \cdot 10^{-10}$	$1.6375 \cdot 10^{-10}$	$1.6698 \cdot 10^{-10}$	$3.6723 \cdot 10^{-12}$	$4.2098 \cdot 10^{-12}$
Bangladesh	$7.2680 \cdot 10^{-10}$	$7.3704 \cdot 10^{-10}$	$2.5180 \cdot 10^{-10}$	$2.5564 \cdot 10^{-10}$	$5.9473 \cdot 10^{-12}$	$6.6596 \cdot 10^{-12}$
Bhutan	$2.8828 \cdot 10^{-11}$	$2.8352 \cdot 10^{-11}$	$9.4646 \cdot 10^{-12}$	$9.0292 \cdot 10^{-12}$	$3.0955 \cdot 10^{-13}$	$2.2000 \cdot 10^{-13}$
India	$5.0745 \cdot 10^{-9}$	$5.1967 \cdot 10^{-9}$	$1.6829 \cdot 10^{-9}$	$1.8677 \cdot 10^{-9}$	$3.7985 \cdot 10^{-11}$	$4.4091 \cdot 10^{-11}$
Sri Lanka	$5.6476 \cdot 10^{-10}$	$5.6677 \cdot 10^{-10}$	$1.9336 \cdot 10^{-10}$	$1.9613 \cdot 10^{-10}$	$4.8470 \cdot 10^{-12}$	$4.3298 \cdot 10^{-12}$
Algeria	$1.6357 \cdot 10^{-9}$	$1.6486 \cdot 10^{-9}$	$5.5871 \cdot 10^{-10}$	$5.7655 \cdot 10^{-10}$	$1.3390 \cdot 10^{-11}$	$1.4278 \cdot 10^{-11}$
Ghana	$5.0673 \cdot 10^{-10}$	$5.0865 \cdot 10^{-10}$	$1.7472 \cdot 10^{-10}$	$1.7884 \cdot 10^{-10}$	$4.1165 \cdot 10^{-12}$	$4.4098 \cdot 10^{-12}$
Iran	$1.9303 \cdot 10^{-9}$	$1.9570 \cdot 10^{-9}$	$6.5933 \cdot 10^{-10}$	$6.8454 \cdot 10^{-10}$	$1.5430 \cdot 10^{-11}$	$1.6877 \cdot 10^{-11}$
Morocco	$7.8636 \cdot 10^{-10}$	$7.8850 \cdot 10^{-10}$	$2.7045 \cdot 10^{-10}$	$2.7752 \cdot 10^{-10}$	$6.5295 \cdot 10^{-12}$	$6.6096 \cdot 10^{-12}$
Pakistan	$1.3630 \cdot 10^{-9}$	$1.3762 \cdot 10^{-9}$	$4.6686 \cdot 10^{-10}$	$4.8173 \cdot 10^{-10}$	$1.0682 \cdot 10^{-11}$	$1.1539 \cdot 10^{-11}$
Tunisia	$3.9440 \cdot 10^{-10}$	$3.9523 \cdot 10^{-10}$	$1.3638 \cdot 10^{-10}$	$1.3739 \cdot 10^{-10}$	$3.2393 \cdot 10^{-12}$	$3.3499 \cdot 10^{-12}$
Argentina	$2.7093 \cdot 10^{-9}$	$2.7424 \cdot 10^{-9}$	$9.1843 \cdot 10^{-10}$	$9.6479 \cdot 10^{-10}$	$2.1582 \cdot 10^{-11}$	$2.3295 \cdot 10^{-11}$
Bolivia	$2.5406 \cdot 10^{-10}$	$2.5479 \cdot 10^{-10}$	$8.9140 \cdot 10^{-11}$	$8.9310 \cdot 10^{-11}$	$2.1818 \cdot 10^{-12}$	$1.9700 \cdot 10^{-12}$
Chile	$1.1480 \cdot 10^{-9}$	$1.1576 \cdot 10^{-9}$	$3.9175 \cdot 10^{-10}$	$4.0081 \cdot 10^{-10}$	$9.2027 \cdot 10^{-12}$	$9.3391 \cdot 10^{-12}$
Paraguay	$1.7016 \cdot 10^{-10}$	$1.7063 \cdot 10^{-10}$	$5.9614 \cdot 10^{-11}$	$5.8106 \cdot 10^{-11}$	$1.5416 \cdot 10^{-12}$	$1.4200 \cdot 10^{-12}$
Peru	$8.7128 \cdot 10^{-10}$	$8.6790 \cdot 10^{-10}$	$2.9974 \cdot 10^{-10}$	$3.0451 \cdot 10^{-10}$	$7.1188 \cdot 10^{-12}$	$7.2795 \cdot 10^{-12}$
Uruguay	$4.2589 \cdot 10^{-10}$	$4.2438 \cdot 10^{-10}$	$1.4586 \cdot 10^{-10}$	$1.4853 \cdot 10^{-10}$	$3.5830 \cdot 10^{-12}$	$3.3599 \cdot 10^{-12}$
Benin	$1.1413 \cdot 10^{-10}$	$1.1461 \cdot 10^{-10}$	$3.8112 \cdot 10^{-11}$	$3.9275 \cdot 10^{-11}$	$8.6614 \cdot 10^{-13}$	$9.1999 \cdot 10^{-13}$
Burkina Faso	$1.1331 \cdot 10^{-10}$	$1.1323 \cdot 10^{-10}$	$3.8944 \cdot 10^{-11}$	$3.9874 \cdot 10^{-11}$	$1.1839 \cdot 10^{-12}$	$1.0600 \cdot 10^{-12}$
Cameroon	$2.8265 \cdot 10^{-10}$	$2.8402 \cdot 10^{-10}$	$9.7340 \cdot 10^{-11}$	$9.7954 \cdot 10^{-11}$	$2.2280 \cdot 10^{-12}$	$2.6799 \cdot 10^{-12}$
Cape Verde	$5.7688 \cdot 10^{-11}$	$5.7777 \cdot 10^{-11}$	$1.8905 \cdot 10^{-11}$	$1.9026 \cdot 10^{-11}$	$5.1866 \cdot 10^{-13}$	$4.8000 \cdot 10^{-13}$
Central African	$1.1404 \cdot 10^{-10}$	$1.1389 \cdot 10^{-10}$	$3.8719 \cdot 10^{-11}$	$4.0114 \cdot 10^{-11}$	$8.2616 \cdot 10^{-13}$	$8.6999 \cdot 10^{-13}$
Chad	$1.1266 \cdot 10^{-10}$	$1.1389 \cdot 10^{-10}$	$3.8277 \cdot 10^{-11}$	$3.8835 \cdot 10^{-11}$	$9.1581 \cdot 10^{-13}$	$9.7999 \cdot 10^{-13}$
Comoros	$5.6700 \cdot 10^{-11}$	$5.7077 \cdot 10^{-11}$	$1.9314 \cdot 10^{-11}$	$1.9836 \cdot 10^{-11}$	$5.1824 \cdot 10^{-13}$	$5.3000 \cdot 10^{-13}$
Republic of Congo	$1.4090 \cdot 10^{-10}$	$1.4469 \cdot 10^{-10}$	$4.9690 \cdot 10^{-11}$	$4.9076 \cdot 10^{-11}$	$1.2332 \cdot 10^{-12}$	$1.2800 \cdot 10^{-12}$
Côte d'Ivoire	$4.5046 \cdot 10^{-10}$	$4.5024 \cdot 10^{-10}$	$1.5926 \cdot 10^{-10}$	$1.5556 \cdot 10^{-10}$	$3.9534 \cdot 10^{-12}$	$4.0298 \cdot 10^{-12}$
Djibouti	$5.6101 \cdot 10^{-11}$	$5.6658 \cdot 10^{-11}$	$1.9523 \cdot 10^{-11}$	$2.0126 \cdot 10^{-11}$	$4.6850 \cdot 10^{-13}$	$6.2000 \cdot 10^{-13}$
Equatorial Guinea	$8.4569 \cdot 10^{-11}$	$8.4339 \cdot 10^{-11}$	$2.9361 \cdot 10^{-11}$	$3.0201 \cdot 10^{-11}$	$6.2677 \cdot 10^{-13}$	$8.0000 \cdot 10^{-13}$
Gabon	$2.2633 \cdot 10^{-10}$	$2.2619 \cdot 10^{-10}$	$7.8917 \cdot 10^{-11}$	$7.9517 \cdot 10^{-11}$	$2.1418 \cdot 10^{-12}$	$2.1800 \cdot 10^{-12}$
Guinea	$1.6844 \cdot 10^{-10}$	$1.7212 \cdot 10^{-10}$	$5.7580 \cdot 10^{-11}$	$5.9784 \cdot 10^{-11}$	$1.4374 \cdot 10^{-12}$	$1.6700 \cdot 10^{-12}$
Guinea-Bissau	$5.6669 \cdot 10^{-11}$	$5.7077 \cdot 10^{-11}$	$1.6865 \cdot 10^{-11}$	$1.9676 \cdot 10^{-11}$	$3.5882 \cdot 10^{-13}$	$5.6000 \cdot 10^{-13}$
Madagascar	$1.9825 \cdot 10^{-10}$	$1.9520 \cdot 10^{-10}$	$6.9790 \cdot 10^{-11}$	$6.9641 \cdot 10^{-11}$	$1.9831 \cdot 10^{-12}$	$1.7900 \cdot 10^{-12}$
Mali	$1.4117 \cdot 10^{-10}$	$1.4092 \cdot 10^{-10}$	$4.9282 \cdot 10^{-11}$	$4.9186 \cdot 10^{-11}$	$1.3569 \cdot 10^{-12}$	$1.2300 \cdot 10^{-12}$
Mauritania	$1.1399 \cdot 10^{-10}$	$1.1258 \cdot 10^{-10}$	$3.8685 \cdot 10^{-11}$	$3.9704 \cdot 10^{-11}$	$9.9408 \cdot 10^{-13}$	$1.2100 \cdot 10^{-12}$
Mauritius	$1.6968 \cdot 10^{-10}$	$1.6905 \cdot 10^{-10}$	$5.8893 \cdot 10^{-11}$	$5.8206 \cdot 10^{-11}$	$1.3042 \cdot 10^{-12}$	$1.6900 \cdot 10^{-12}$
Niger	$1.1400 \cdot 10^{-10}$	$1.1435 \cdot 10^{-10}$	$3.8449 \cdot 10^{-11}$	$4.0004 \cdot 10^{-11}$	$1.0546 \cdot 10^{-12}$	$1.1000 \cdot 10^{-12}$
Rwanda	$1.4267 \cdot 10^{-10}$	$1.4366 \cdot 10^{-10}$	$4.9303 \cdot 10^{-11}$	$4.9885 \cdot 10^{-11}$	$1.3600 \cdot 10^{-12}$	$1.2900 \cdot 10^{-12}$
Sao Tomé	$5.7689 \cdot 10^{-11}$	$5.6508 \cdot 10^{-11}$	$1.8227 \cdot 10^{-11}$	$2.0196 \cdot 10^{-11}$	$4.8848 \cdot 10^{-13}$	$3.4000 \cdot 10^{-13}$
Senegal	$2.5489 \cdot 10^{-10}$	$2.5566 \cdot 10^{-10}$	$8.7731 \cdot 10^{-11}$	$8.9939 \cdot 10^{-11}$	$2.3951 \cdot 10^{-12}$	$2.3200 \cdot 10^{-12}$
Togo	$1.4007 \cdot 10^{-10}$	$1.4243 \cdot 10^{-10}$	$4.8904 \cdot 10^{-11}$	$4.9835 \cdot 10^{-11}$	$1.2328 \cdot 10^{-12}$	$1.3000 \cdot 10^{-12}$

Table A.6: Estimated variances for the weighted majority game in the Banzhaf-Owen value estimation.

A.2 Graphical results

In this appendix, we display the absolute error in estimating the Banzhaf-Owen value by using $q = 70\%$ and $q = 85\%$ in the weighted majority game of Alonso-Meijide and Bowles (2005).

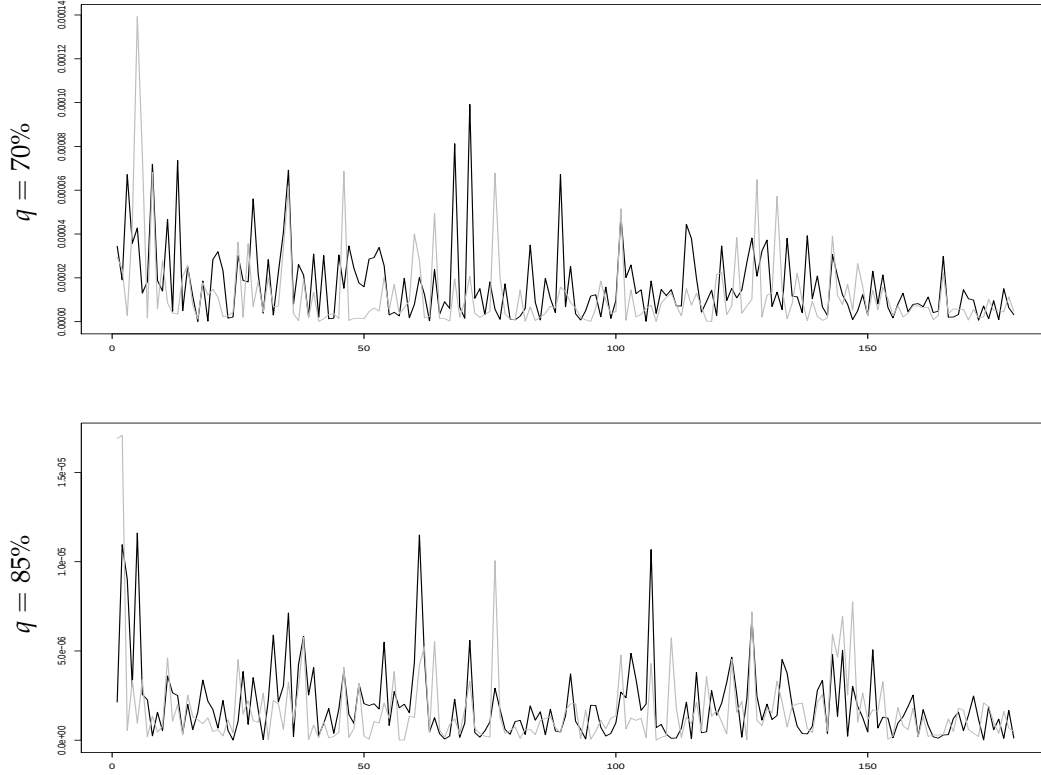


Figure A.1: Absolute error for the 179 players using stratified sampling (in black) and *SRSwr* (in gray) in the Banzhaf-Owen value estimation.

Figure A.2 describes the violin plots of the 1000 errors in estimating the Banzhaf-Owen value for Austria and for $q = 50\%$, $q = 70\%$ and $q = 85\%$ with $\ell = 10^7$.

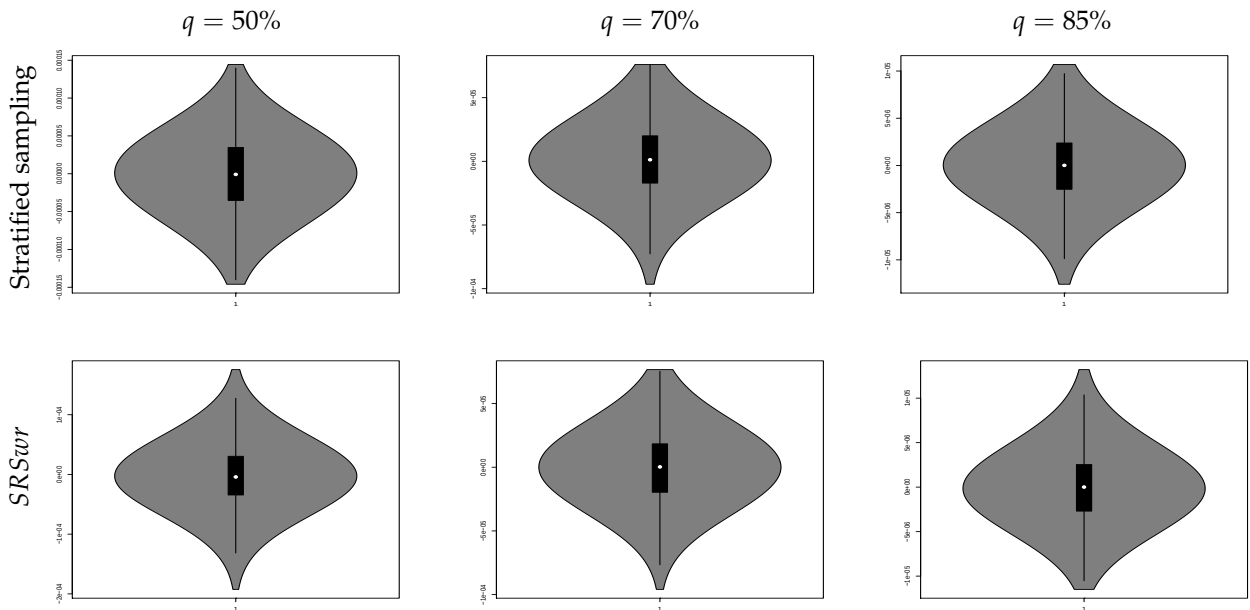


Figure A.2: Violin plots of the errors in 1000 estimations of the Banzhaf-Owen value for $q = 50\%$, $q = 70\%$ and $q = 85\%$.

B Numerical results: the Owen value for the IMF

This appendix includes the results of estimating the Owen value for the countries belonging to the IMF in 2002. We show these results obtained in terms of the absolute error and the estimated variance. We use again different quotas in the corresponding weighted majority game.

Country	Voting right	$q = 50\%$			$q = 70\%$			$q = 85\%$		
		O_i	Absolute error	Estimated variance	O_i	Absolute error	Estimated variance	O_i	Absolute error	Estimated variance
United States	17.11	0.19804	$1.8720 \cdot 10^{-5}$	$1.7741 \cdot 10^{-9}$	0.19789	$1.3113 \cdot 10^{-4}$	$1.7266 \cdot 10^{-7}$	0.19082	$8.1422 \cdot 10^{-6}$	$7.5294 \cdot 10^{-8}$
Japan	6.14	0.06106	$6.2407 \cdot 10^{-5}$	$1.8442 \cdot 10^{-9}$	0.06085	$4.7318 \cdot 10^{-4}$	$9.3944 \cdot 10^{-8}$	0.06269	$5.5279 \cdot 10^{-4}$	$1.0972 \cdot 10^{-6}$
Germany	6.00	0.05959	$5.9137 \cdot 10^{-5}$	$1.8104 \cdot 10^{-9}$	0.05948	$4.0680 \cdot 10^{-4}$	$9.1536 \cdot 10^{-8}$	0.06140	$1.1472 \cdot 10^{-3}$	$9.1695 \cdot 10^{-7}$
France	4.95	0.04864	$2.9510 \cdot 10^{-5}$	$1.5228 \cdot 10^{-9}$	0.04869	$1.6900 \cdot 10^{-4}$	$6.3140 \cdot 10^{-8}$	0.04878	$6.5581 \cdot 10^{-4}$	$7.1769 \cdot 10^{-7}$
United Kingdom	4.95	0.04864	$1.6882 \cdot 10^{-5}$	$1.5221 \cdot 10^{-9}$	0.04869	$2.1796 \cdot 10^{-4}$	$6.2665 \cdot 10^{-8}$	0.04878	$1.8552 \cdot 10^{-4}$	$6.3659 \cdot 10^{-7}$
Austria	0.87	0.00856	$2.9313 \cdot 10^{-5}$	$3.6694 \cdot 10^{-9}$	0.00859	$3.2120 \cdot 10^{-4}$	$3.3864 \cdot 10^{-8}$	0.00859	$1.2179 \cdot 10^{-3}$	$1.9737 \cdot 10^{-6}$
Belarus	0.19	0.00187	$1.8302 \cdot 10^{-5}$	$8.7625 \cdot 10^{-10}$	0.00188	$1.3005 \cdot 10^{-5}$	$6.4662 \cdot 10^{-9}$	0.00189	$2.4204 \cdot 10^{-4}$	$3.8960 \cdot 10^{-8}$
Belgium	2.13	0.02097	$2.9744 \cdot 10^{-4}$	$8.9840 \cdot 10^{-9}$	0.02101	$6.7848 \cdot 10^{-4}$	$1.3473 \cdot 10^{-7}$	0.02126	$9.6775 \cdot 10^{-4}$	$3.2113 \cdot 10^{-6}$
Czech Republic	0.39	0.00384	$4.3194 \cdot 10^{-6}$	$1.6840 \cdot 10^{-9}$	0.00385	$2.4702 \cdot 10^{-4}$	$1.0394 \cdot 10^{-8}$	0.00386	$1.2932 \cdot 10^{-3}$	$1.4924 \cdot 10^{-6}$
Hungary	0.49	0.00482	$7.6593 \cdot 10^{-5}$	$2.0426 \cdot 10^{-9}$	0.00484	$1.1083 \cdot 10^{-4}$	$1.1209 \cdot 10^{-8}$	0.00484	$2.5124 \cdot 10^{-4}$	$8.9425 \cdot 10^{-7}$
Kazakhstan	0.18	0.00177	$9.7337 \cdot 10^{-6}$	$5.1773 \cdot 10^{-10}$	0.00179	$1.3724 \cdot 10^{-4}$	$7.5392 \cdot 10^{-9}$	0.00180	$5.6495 \cdot 10^{-4}$	$2.0270 \cdot 10^{-8}$
Luxembourg	0.14	0.00138	$6.1942 \cdot 10^{-6}$	$5.7593 \cdot 10^{-10}$	0.00138	$7.9425 \cdot 10^{-5}$	$3.6737 \cdot 10^{-9}$	0.00139	$1.3474 \cdot 10^{-4}$	$6.2001 \cdot 10^{-8}$
Slovak Republic	0.18	0.00177	$5.1460 \cdot 10^{-6}$	$5.3617 \cdot 10^{-10}$	0.00179	$9.6792 \cdot 10^{-5}$	$3.7955 \cdot 10^{-9}$	0.00180	$3.0051 \cdot 10^{-4}$	$4.1016 \cdot 10^{-8}$
Slovenia	0.12	0.00118	$7.4208 \cdot 10^{-6}$	$5.7589 \cdot 10^{-10}$	0.00119	$8.5331 \cdot 10^{-5}$	$1.6281 \cdot 10^{-8}$	0.00120	$5.1398 \cdot 10^{-4}$	$5.7627 \cdot 10^{-9}$
Turkey	0.46	0.00453	$8.3799 \cdot 10^{-6}$	$1.9788 \cdot 10^{-9}$	0.00454	$1.7579 \cdot 10^{-4}$	$4.3406 \cdot 10^{-8}$	0.00454	$8.7742 \cdot 10^{-5}$	$1.9774 \cdot 10^{-7}$
Armenia	0.05	0.00049	$2.6772 \cdot 10^{-6}$	$6.4802 \cdot 10^{-10}$	0.00049	$9.3008 \cdot 10^{-5}$	$3.0925 \cdot 10^{-8}$	0.00048	$7.8373 \cdot 10^{-5}$	$9.4813 \cdot 10^{-9}$
Bosnia and Herzegovina	0.09	0.00088	$4.6345 \cdot 10^{-5}$	$1.3512 \cdot 10^{-9}$	0.00089	$2.2535 \cdot 10^{-4}$	$8.6574 \cdot 10^{-8}$	0.00088	$2.9954 \cdot 10^{-4}$	$1.3360 \cdot 10^{-8}$
Bulgaria	0.31	0.00304	$5.4109 \cdot 10^{-5}$	$4.2577 \cdot 10^{-9}$	0.00305	$1.4709 \cdot 10^{-4}$	$1.5401 \cdot 10^{-8}$	0.00305	$5.0755 \cdot 10^{-4}$	$1.5555 \cdot 10^{-7}$
Croatia	0.18	0.00177	$2.9972 \cdot 10^{-5}$	$1.8817 \cdot 10^{-9}$	0.00178	$1.1060 \cdot 10^{-4}$	$7.7904 \cdot 10^{-9}$	0.00175	$7.7041 \cdot 10^{-5}$	$2.0679 \cdot 10^{-7}$
Cyprus	0.08	0.00079	$2.2100 \cdot 10^{-5}$	$4.4498 \cdot 10^{-10}$	0.00079	$3.7482 \cdot 10^{-5}$	$2.8114 \cdot 10^{-9}$	0.00078	$7.5454 \cdot 10^{-5}$	$4.2843 \cdot 10^{-8}$
Georgia	0.08	0.00079	$1.2300 \cdot 10^{-6}$	$4.9237 \cdot 10^{-10}$	0.00079	$1.0103 \cdot 10^{-4}$	$1.2447 \cdot 10^{-9}$	0.00078	$6.7794 \cdot 10^{-5}$	$3.8860 \cdot 10^{-8}$
Israel	0.44	0.00432	$5.4223 \cdot 10^{-5}$	$4.9051 \cdot 10^{-9}$	0.00433	$2.6675 \cdot 10^{-4}$	$1.6428 \cdot 10^{-8}$	0.00430	$8.5259 \cdot 10^{-4}$	$2.0655 \cdot 10^{-7}$
Macedonia	0.04	0.00039	$2.6796 \cdot 10^{-6}$	$5.1370 \cdot 10^{-10}$	0.00039	$3.9816 \cdot 10^{-6}$	$1.4470 \cdot 10^{-9}$	0.00038	$4.7426 \cdot 10^{-5}$	$1.2161 \cdot 10^{-8}$
Moldova	0.07	0.00069	$9.6539 \cdot 10^{-5}$	$1.4022 \cdot 10^{-9}$	0.00069	$5.1558 \cdot 10^{-5}$	$4.5136 \cdot 10^{-9}$	0.00068	$9.7838 \cdot 10^{-5}$	$4.7579 \cdot 10^{-8}$
The Netherlands	2.39	0.02346	$1.2834 \cdot 10^{-4}$	$2.5105 \cdot 10^{-8}$	0.02347	$2.3004 \cdot 10^{-4}$	$6.0234 \cdot 10^{-7}$	0.02380	$1.1115 \cdot 10^{-3}$	$4.8053 \cdot 10^{-6}$
Romania	0.49	0.00481	$7.1756 \cdot 10^{-5}$	$4.9771 \cdot 10^{-9}$	0.00482	$8.1628 \cdot 10^{-5}$	$1.0182 \cdot 10^{-8}$	0.00477	$1.0643 \cdot 10^{-4}$	$7.6354 \cdot 10^{-7}$
Ukraine	0.64	0.00628	$7.6183 \cdot 10^{-5}$	$6.8431 \cdot 10^{-9}$	0.00631	$1.6757 \cdot 10^{-4}$	$4.0914 \cdot 10^{-8}$	0.00625	$6.8259 \cdot 10^{-5}$	$3.9614 \cdot 10^{-7}$
Costa Rica	0.09	0.00088	$6.7066 \cdot 10^{-6}$	$1.0561 \cdot 10^{-10}$	0.00090	$9.4706 \cdot 10^{-5}$	$3.3449 \cdot 10^{-8}$	0.00086	$1.9668 \cdot 10^{-4}$	$7.3705 \cdot 10^{-8}$
El Salvador	0.09	0.00088	$7.2700 \cdot 10^{-6}$	$1.1276 \cdot 10^{-10}$	0.00090	$3.1194 \cdot 10^{-7}$	$3.0071 \cdot 10^{-9}$	0.00086	$8.6471 \cdot 10^{-5}$	$3.8860 \cdot 10^{-8}$
Guatemala	0.11	0.00107	$1.6781 \cdot 10^{-5}$	$2.1181 \cdot 10^{-10}$	0.00110	$3.7755 \cdot 10^{-5}$	$3.1230 \cdot 10^{-9}$	0.00104	$1.8616 \cdot 10^{-4}$	$1.1162 \cdot 10^{-8}$
Honduras	0.07	0.00068	$1.1693 \cdot 10^{-5}$	$8.0859 \cdot 10^{-11}$	0.00070	$2.0979 \cdot 10^{-5}$	$2.1472 \cdot 10^{-9}$	0.00067	$5.0151 \cdot 10^{-5}$	$4.0232 \cdot 10^{-8}$
Mexico	1.20	0.01172	$2.3620 \cdot 10^{-5}$	$2.0540 \cdot 10^{-9}$	0.01176	$2.5781 \cdot 10^{-4}$	$3.2764 \cdot 10^{-8}$	0.01199	$1.6109 \cdot 10^{-3}$	$8.6932 \cdot 10^{-7}$
Nicaragua	0.07	0.00068	$1.0409 \cdot 10^{-5}$	$8.7414 \cdot 10^{-11}$	0.00070	$5.5946 \cdot 10^{-5}$	$6.3970 \cdot 10^{-10}$	0.00067	$1.1589 \cdot 10^{-4}$	$7.6211 \cdot 10^{-9}$
Spain	1.42	0.01386	$1.7903 \cdot 10^{-5}$	$2.3904 \cdot 10^{-9}$	0.01392	$3.3802 \cdot 10^{-4}$	$4.0406 \cdot 10^{-8}$	0.01408	$6.0295 \cdot 10^{-4}$	$8.3148 \cdot 10^{-7}$
Venezuela	1.24	0.01211	$4.3023 \cdot 10^{-5}$	$2.0834 \cdot 10^{-9}$	0.01216	$3.9757 \cdot 10^{-4}$	$3.0046 \cdot 10^{-8}$	0.01237	$2.2922 \cdot 10^{-4}$	$5.8249 \cdot 10^{-7}$
Albania	0.03	0.00029	$7.1752 \cdot 10^{-6}$	$2.6295 \cdot 10^{-11}$	0.00030	$3.9753 \cdot 10^{-5}$	$9.3228 \cdot 10^{-11}$	0.00032	$9.3422 \cdot 10^{-5}$	$1.9056 \cdot 10^{-9}$
Greece	0.39	0.00380	$8.2147 \cdot 10^{-6}$	$3.3066 \cdot 10^{-10}$	0.00382	$6.4011 \cdot 10^{-5}$	$5.7358 \cdot 10^{-9}$	0.00401	$3.8053 \cdot 10^{-4}$	$1.5894 \cdot 10^{-7}$
Italy	3.26	0.03178	$4.2052 \cdot 10^{-5}$	$2.4089 \cdot 10^{-9}$	0.03182	$2.2246 \cdot 10^{-4}$	$9.7855 \cdot 10^{-8}$	0.03230	$1.0480 \cdot 10^{-3}$	$5.9426 \cdot 10^{-7}$
Malta	0.06	0.00058	$6.6128 \cdot 10^{-6}$	$5.1287 \cdot 10^{-11}$	0.00058	$3.5729 \cdot 10^{-5}$	$4.1550 \cdot 10^{-10}$	0.00057	$2.5717 \cdot 10^{-4}$	$3.0230 \cdot 10^{-9}$
Portugal	0.41	0.00400	$8.0149 \cdot 10^{-7}$	$3.4463 \cdot 10^{-10}$	0.00402	$6.7733 \cdot 10^{-5}$	$7.8134 \cdot 10^{-9}$	0.00419	$1.2238 \cdot 10^{-4}$	$1.2282 \cdot 10^{-7}$
San Marino	0.01	0.00009	$4.3498 \cdot 10^{-6}$	$6.4903 \cdot 10^{-12}$	0.00011	$2.0221 \cdot 10^{-4}$	$2.1893 \cdot 10^{-8}$	0.00014	$8.1258 \cdot 10^{-5}$	$3.4901 \cdot 10^{-10}$
Antigua and Barbuda	0.02	0.00019	$4.5634 \cdot 10^{-6}$	$1.5924 \cdot 10^{-11}$	0.00019	$1.0688 \cdot 10^{-5}$	$5.6371 \cdot 10^{-10}$	0.00020	$4.2465 \cdot 10^{-5}$	$1.8673 \cdot 10^{-9}$
The Bahamas	0.07	0.00068	$5.0443 \cdot 10^{-5}$	$4.4203 \cdot 10^{-10}$	0.00068	$6.0918 \cdot 10^{-5}$	$4.0103 \cdot 10^{-9}$	0.00068	$5.7452 \cdot 10^{-5}$	$1.4296 \cdot 10^{-8}$
Barbados	0.04	0.00039	$2.3016 \cdot 10^{-5}$	$3.1439 \cdot 10^{-10}$	0.00039	$6.6468 \cdot 10^{-5}$	$6.0886 \cdot 10^{-10}$	0.00040	$1.6169 \cdot 10^{-4}$	$6.1325 \cdot 10^{-9}$
Belize	0.02	0.00019	$6.0685 \cdot 10^{-6}$	$1.9147 \cdot 10^{-11}$	0.00019	$2.3381 \cdot 10^{-6}$	$2.3732 \cdot 10^{-10}$	0.00020	$5.8935 \cdot 10^{-5}$	$1.6515 \cdot 10^{-9}$
Canada	2.94	0.02855	$9.8023 \cdot 10^{-5}$	$2.8960 \cdot 10^{-8}$	0.02850	$3.0351 \cdot 10^{-4}$	$6.5622 \cdot 10^{-7}$	0.02881	$4.3171 \cdot 10^{-4}$	$7.7017 \cdot 10^{-6}$
Dominica	0.02	0.00019	$3.5211 \cdot 10^{-7}$	$1.7127 \cdot 10^{-11}$	0.00019	$1.4173 \cdot 10^{-5}$	$5.2694 \cdot 10^{-10}$	0.00020	$3.8556 \cdot 10^{-5}$	$2.0796 \cdot 10^{-9}$
Grenada	0.02	0.00019	$2.1434 \cdot 10^{-6}$	$1.8192 \cdot 10^{-11}$	0.00019	$6.4005 \cdot 10^{-6}$	$1.4854 \cdot 10^{-10}$	0.00020	$5.0074 \cdot 10^{-5}$	$1.4502 \cdot 10^{-9}$
Ireland	0.40	0.00389	$2.5156 \cdot 10^{-5}$	$4.9600 \cdot 10^{-9}$	0.00384	$2.0254 \cdot 10^{-4}$	$9.8988 \cdot 10^{-8}$	0.00430	$2.6213 \cdot 10^{-4}$	$2.7858 \cdot 10^{-7}$
Jamaica	0.14	0.00136	$6.6281 \cdot 10^{-5}$	$1.0921 \cdot 10^{-9}$	0.00136	$5.2253 \cdot 10^{-5}$	$4.6582 \cdot 10^{-9}$	0.00141	$5.9879 \cdot 10^{-4}$	$9.4213 \cdot 10^{-9}$
St Kitts and Nevis	0.02	0.00019	$4.3218 \cdot 10^{-6}$	$1.7663 \cdot 10^{-11}$	0.00019	$2.3686 \cdot 10^{-5}$	$8.0698 \cdot 10^{-11}$	0.00020	$6.6134 \cdot 10^{-5}$	$1.3921 \cdot 10^{-9}$
St Lucia	0.02	0.00019	$1.0020 \cdot 10^{-5}$	$1.4746 \cdot 10^{-11}$	0.00019	$9.3986 \cdot 10^{-6}$	$2.4726 \cdot 10^{-10}$	0.00020	$8.0755 \cdot 10^{-5}$	$1.2673 \cdot 10^{-9}$
St Vincent	0.02	0.00019	$4.6583 \cdot 10^{-6}$	$1.6010 \cdot 10^{-11}$	0.00019	$1.1514 \cdot 10^{-6}$	$5.5677 \cdot 10^{-10}$	0.00020	$1.8913 \cdot 10^{-5}$	$2.6334 \cdot 10^{-9}$
Denmark	0.77	0.00746	$2.8803 \cdot 10^{-5}$	$1.3292 \cdot 10^{-9}$	0.00745	$3.2990 \cdot 10^{-5}$	$1.1229 \cdot 10^{-7}$	0.00764	$7.3131 \cdot 10^{-4}$	$4.4480 \cdot 10^{-7}$
Estonia	0.04	0.00039	$5.2266 \cdot 10^{-6}$	$6.4266 \cdot 10^{-11}$	0.00038	$4.1989 \cdot 10^{-5}$	$2.0430 \cdot 10^{-10}$	0.00044	$6.1169 \cdot 10^{-5}$	$1.2343 \cdot 10^{-8}$
Finland	0.59	0.00572	$1.9199 \cdot 10^{-5}$	$1.0165 \cdot 10^{-9}$	0.00574	$1.5296 \cdot 10^{-4}$	$3.0163 \cdot 10^{-8}$	0.00593	$5.0603 \cdot 10^{-4}$	$4.4259 \cdot 10^{-7}$
Iceland	0.07	0.00068	$1.4548 \cdot 10^{-5}$	$8.7646 \cdot 10^{-11}$	0.00068	$7.0716 \cdot 10^{-6}$	$7.1160 \cdot 10^{-10}$	0.00074	$1.5939 \cdot 10^{-4}$	$8.9392 \cdot 10^{-9}$
Latvia	0.07	0.00068	$1.3281 \cdot 10^{-5}$	$7.7510 \cdot 10^{-11}$	0.00068	$4.2374 \cdot 10^{-5}$	$6.4796 \cdot 10^{-10}$	0.00074	$1.1001 \cdot 10^{-4}$	$1.1113 \cdot 10^{-8}$
Lithuania	0.08	0.00078	$2.1662 \cdot 10^{-5}$	$1.3039 \cdot 10^{-10}$	0.00077	$6.2765 \cdot 10^{-5}$	$8.7127 \cdot 10^{-9}$	0.00082	$1.2442 \cdot 10^{-4}$	$2.5326 \cdot 10^{-8}$
Norway	0.78	0.00756	$3.5594 \cdot 10^{-5}$	$1.3071 \cdot 10^{-9}$	0.00755	$9.9325 \cdot 10^{-5}$	$2.9754 \cdot 10^{-8}$	0.00774	$2.7805 \cdot 10^{-4}$	$5.0570 \cdot 10^{-7}$
Sweden	1.11	0.01076	$3.7669 \cdot 10^{-6}$	$1.8670 \cdot 10^{-9}$	0.01074	$6.2039 \cdot 10^{-4}$	$2.0925 \cdot 10^{-7}$	0.01084	$1.2453 \cdot 10^{-3}$	$3.4838 \cdot 10^{-7}$
Australia	1.5	0.01451	$2.4060 \cdot 10^{-5}$	$4.4310 \cdot 10^{-8}$	0.01455	$1.0242 \cdot 10^{-4}$	$7.4432 \cdot 10^{-7}$	0.01443	$2.5479 \cdot 10^{-3}$	$2.6665 \cdot 10^{-6}$
Kiribati	0.01	0.00010	$1.1940 \cdot 10^{-5}$	$2.7101 \cdot 10^{-11}$	0.00010	$1.2967 \cdot 10^{-5}$	$9.2235 \cdot 10^{-11}$	0.00010	$7.9498 \cdot 10^{-5}$	$3.9655 \cdot 10^{-11}$

Country	Voting right	$q = 50\%$			$q = 70\%$			$q = 85\%$		
		O_i	Absolute error	Estimated variance	O_i	Absolute error	Estimated variance	O_i	Absolute error	Estimated variance
Saudi Arabia	3.23	0.03122	$3.1123 \cdot 10^{-5}$	$1.0090 \cdot 10^{-9}$	0.03125	$1.3700 \cdot 10^{-5}$	$3.2424 \cdot 10^{-8}$	0.03113	$5.1383 \cdot 10^{-4}$	$2.7908 \cdot 10^{-7}$
Angola	0.14	0.00135	$1.8260 \cdot 10^{-4}$	$6.5219 \cdot 10^{-9}$	0.00135	$2.5898 \cdot 10^{-4}$	$1.4425 \cdot 10^{-8}$	0.00134	$4.4149 \cdot 10^{-4}$	$3.7023 \cdot 10^{-8}$
Botswana	0.04	0.00039	$5.0888 \cdot 10^{-5}$	$7.1515 \cdot 10^{-10}$	0.00039	$1.2163 \cdot 10^{-4}$	$5.1557 \cdot 10^{-10}$	0.00038	$4.0563 \cdot 10^{-4}$	$1.2037 \cdot 10^{-7}$
Burundi	0.05	0.00048	$3.4258 \cdot 10^{-5}$	$5.9069 \cdot 10^{-9}$	0.00048	$1.1781 \cdot 10^{-4}$	$9.4790 \cdot 10^{-10}$	0.00049	$1.9130 \cdot 10^{-4}$	$6.4363 \cdot 10^{-9}$
Eritrea	0.02	0.00019	$1.3893 \cdot 10^{-5}$	$4.1523 \cdot 10^{-9}$	0.00019	$6.9999 \cdot 10^{-5}$	$3.9511 \cdot 10^{-10}$	0.00019	$1.2417 \cdot 10^{-4}$	$3.7338 \cdot 10^{-10}$
Ethiopia	0.07	0.00068	$5.6124 \cdot 10^{-5}$	$3.9495 \cdot 10^{-9}$	0.00068	$1.4410 \cdot 10^{-4}$	$1.6997 \cdot 10^{-9}$	0.00067	$2.7080 \cdot 10^{-4}$	$1.3243 \cdot 10^{-8}$
The Gambia	0.03	0.00029	$5.1992 \cdot 10^{-4}$	$3.0111 \cdot 10^{-7}$	0.00029	$4.5667 \cdot 10^{-5}$	$5.8452 \cdot 10^{-10}$	0.00029	$1.5519 \cdot 10^{-4}$	$9.8756 \cdot 10^{-8}$
Kenya	0.14	0.00135	$6.1678 \cdot 10^{-4}$	$4.9046 \cdot 10^{-7}$	0.00135	$2.3378 \cdot 10^{-4}$	$2.1681 \cdot 10^{-8}$	0.00134	$3.7489 \cdot 10^{-4}$	$3.6414 \cdot 10^{-8}$
Lesotho	0.03	0.00029	$1.5989 \cdot 10^{-5}$	$1.2027 \cdot 10^{-9}$	0.00029	$1.7027 \cdot 10^{-4}$	$2.2446 \cdot 10^{-8}$	0.00029	$6.9581 \cdot 10^{-5}$	$3.6687 \cdot 10^{-9}$
Liberia	0.04	0.00039	$8.6133 \cdot 10^{-5}$	$2.8348 \cdot 10^{-10}$	0.00039	$4.7396 \cdot 10^{-5}$	$1.7432 \cdot 10^{-9}$	0.00038	$1.8959 \cdot 10^{-4}$	$1.3456 \cdot 10^{-9}$
Malawi	0.04	0.00039	$9.8916 \cdot 10^{-5}$	$1.3786 \cdot 10^{-10}$	0.00039	$1.4296 \cdot 10^{-4}$	$4.5580 \cdot 10^{-10}$	0.00038	$1.3714 \cdot 10^{-4}$	$8.5067 \cdot 10^{-9}$
Mozambique	0.06	0.00058	$4.3714 \cdot 10^{-5}$	$3.8328 \cdot 10^{-9}$	0.00058	$9.6581 \cdot 10^{-5}$	$9.4644 \cdot 10^{-9}$	0.00058	$3.1937 \cdot 10^{-4}$	$1.3712 \cdot 10^{-9}$
Namibia	0.07	0.00068	$1.3910 \cdot 10^{-4}$	$3.9881 \cdot 10^{-10}$	0.00068	$1.6975 \cdot 10^{-4}$	$9.8846 \cdot 10^{-10}$	0.00067	$3.5847 \cdot 10^{-5}$	$3.2063 \cdot 10^{-8}$
Nigeria	0.82	0.00792	$5.1418 \cdot 10^{-4}$	$9.6615 \cdot 10^{-8}$	0.00791	$4.5211 \cdot 10^{-4}$	$6.5416 \cdot 10^{-7}$	0.00789	$2.8872 \cdot 10^{-4}$	$1.5529 \cdot 10^{-7}$
Sierra Leone	0.06	0.00058	$4.9911 \cdot 10^{-5}$	$8.4144 \cdot 10^{-9}$	0.00058	$1.4901 \cdot 10^{-4}$	$9.4272 \cdot 10^{-10}$	0.00058	$1.1449 \cdot 10^{-4}$	$1.4331 \cdot 10^{-8}$
South Africa	0.87	0.00841	$5.8508 \cdot 10^{-4}$	$9.0860 \cdot 10^{-8}$	0.00839	$1.0904 \cdot 10^{-3}$	$6.1535 \cdot 10^{-7}$	0.00838	$2.5850 \cdot 10^{-3}$	$5.9307 \cdot 10^{-7}$
Sudan	0.09	0.00087	$1.6761 \cdot 10^{-4}$	$6.8158 \cdot 10^{-10}$	0.00087	$1.4402 \cdot 10^{-4}$	$3.6354 \cdot 10^{-9}$	0.00087	$1.8415 \cdot 10^{-4}$	$1.5425 \cdot 10^{-8}$
Swaziland	0.03	0.00029	$6.3121 \cdot 10^{-5}$	$1.1120 \cdot 10^{-10}$	0.00029	$7.6704 \cdot 10^{-5}$	$3.5320 \cdot 10^{-10}$	0.00029	$1.0323 \cdot 10^{-4}$	$5.2242 \cdot 10^{-9}$
Tanzania	0.10	0.00097	$1.1975 \cdot 10^{-4}$	$1.1453 \cdot 10^{-8}$	0.00097	$1.2047 \cdot 10^{-4}$	$1.2823 \cdot 10^{-8}$	0.00097	$4.3105 \cdot 10^{-4}$	$6.8125 \cdot 10^{-9}$
Uganda	0.09	0.00087	$1.7424 \cdot 10^{-5}$	$5.4462 \cdot 10^{-9}$	0.00087	$5.7142 \cdot 10^{-6}$	$4.0336 \cdot 10^{-8}$	0.00087	$2.2308 \cdot 10^{-4}$	$2.7046 \cdot 10^{-8}$
Zambia	0.24	0.00232	$2.7826 \cdot 10^{-4}$	$1.1859 \cdot 10^{-8}$	0.00232	$1.4790 \cdot 10^{-3}$	$7.7516 \cdot 10^{-9}$	0.00230	$6.4388 \cdot 10^{-4}$	$8.3872 \cdot 10^{-8}$
Zimbabwe	0.17	0.00164	$4.5385 \cdot 10^{-5}$	$1.8405 \cdot 10^{-8}$	0.00165	$5.1356 \cdot 10^{-4}$	$2.3788 \cdot 10^{-9}$	0.00163	$1.2546 \cdot 10^{-4}$	$1.5263 \cdot 10^{-7}$
Brunei Darussalam	0.08	0.00077	$1.2815 \cdot 10^{-5}$	$9.2626 \cdot 10^{-10}$	0.00078	$1.0202 \cdot 10^{-4}$	$1.4586 \cdot 10^{-9}$	0.00075	$8.0136 \cdot 10^{-5}$	$1.6631 \cdot 10^{-8}$
Cambodia	0.05	0.00048	$5.0262 \cdot 10^{-4}$	$4.8741 \cdot 10^{-10}$	0.00049	$5.1641 \cdot 10^{-5}$	$1.7435 \cdot 10^{-9}$	0.00048	$1.0117 \cdot 10^{-4}$	$1.0122 \cdot 10^{-8}$
Fiji	0.04	0.00039	$3.6494 \cdot 10^{-5}$	$3.9086 \cdot 10^{-11}$	0.00039	$7.3057 \cdot 10^{-5}$	$3.3268 \cdot 10^{-10}$	0.00038	$1.3830 \cdot 10^{-4}$	$2.5529 \cdot 10^{-9}$
Indonesia	0.97	0.00937	$1.7706 \cdot 10^{-4}$	$1.1010 \cdot 10^{-8}$	0.00936	$7.4428 \cdot 10^{-5}$	$2.2590 \cdot 10^{-7}$	0.00934	$8.9171 \cdot 10^{-4}$	$1.3046 \cdot 10^{-6}$
Lao People's	0.04	0.00039	$2.6064 \cdot 10^{-6}$	$1.6444 \cdot 10^{-10}$	0.00039	$3.8779 \cdot 10^{-6}$	$1.3058 \cdot 10^{-9}$	0.00038	$9.4132 \cdot 10^{-5}$	$3.7903 \cdot 10^{-9}$
Malaysia	0.70	0.00676	$2.9940 \cdot 10^{-5}$	$7.6642 \cdot 10^{-9}$	0.00676	$9.7543 \cdot 10^{-5}$	$6.1723 \cdot 10^{-8}$	0.00669	$9.3727 \cdot 10^{-4}$	$2.7831 \cdot 10^{-7}$
Myanmar	0.13	0.00126	$3.8360 \cdot 10^{-5}$	$1.6347 \cdot 10^{-9}$	0.00127	$6.9284 \cdot 10^{-5}$	$1.5618 \cdot 10^{-8}$	0.00124	$7.5942 \cdot 10^{-4}$	$1.0074 \cdot 10^{-7}$
Nepal	0.04	0.00039	$6.3667 \cdot 10^{-6}$	$1.6012 \cdot 10^{-10}$	0.00039	$3.9565 \cdot 10^{-5}$	$4.1752 \cdot 10^{-10}$	0.00038	$1.4465 \cdot 10^{-4}$	$2.5806 \cdot 10^{-9}$
Singapore	0.41	0.00396	$1.3942 \cdot 10^{-5}$	$4.6417 \cdot 10^{-9}$	0.00396	$1.9791 \cdot 10^{-5}$	$2.3397 \cdot 10^{-8}$	0.00394	$3.5806 \cdot 10^{-4}$	$5.9818 \cdot 10^{-7}$
Thailand	0.51	0.00492	$5.1080 \cdot 10^{-6}$	$5.8636 \cdot 10^{-9}$	0.00492	$5.9911 \cdot 10^{-4}$	$3.6258 \cdot 10^{-7}$	0.00487	$1.4904 \cdot 10^{-4}$	$6.1777 \cdot 10^{-7}$
Tonga	0.01	0.00010	$1.6708 \cdot 10^{-5}$	$1.3464 \cdot 10^{-11}$	0.00010	$5.6447 \cdot 10^{-6}$	$6.3465 \cdot 10^{-10}$	0.00009	$4.8431 \cdot 10^{-5}$	$4.9423 \cdot 10^{-10}$
Vietnam	0.16	0.00154	$2.8829 \cdot 10^{-5}$	$1.9317 \cdot 10^{-9}$	0.00156	$7.1300 \cdot 10^{-5}$	$8.0893 \cdot 10^{-9}$	0.00151	$1.1165 \cdot 10^{-3}$	$5.5896 \cdot 10^{-7}$
Bahrain	0.07	0.00067	$2.9846 \cdot 10^{-5}$	$7.6133 \cdot 10^{-10}$	0.00067	$1.2088 \cdot 10^{-4}$	$1.4482 \cdot 10^{-9}$	0.00067	$1.9634 \cdot 10^{-4}$	$1.0892 \cdot 10^{-7}$
Egypt	0.45	0.00434	$8.6082 \cdot 10^{-5}$	$8.4162 \cdot 10^{-9}$	0.00432	$6.5428 \cdot 10^{-5}$	$5.1601 \cdot 10^{-8}$	0.00434	$1.0137 \cdot 10^{-3}$	$8.5287 \cdot 10^{-8}$
Iraq	0.24	0.00231	$7.2626 \cdot 10^{-5}$	$3.3048 \cdot 10^{-9}$	0.00230	$1.9750 \cdot 10^{-5}$	$1.9610 \cdot 10^{-8}$	0.00234	$4.6245 \cdot 10^{-4}$	$5.1891 \cdot 10^{-8}$
Jordan	0.09	0.00087	$1.8044 \cdot 10^{-5}$	$2.2810 \cdot 10^{-9}$	0.00087	$2.8017 \cdot 10^{-4}$	$1.0662 \cdot 10^{-7}$	0.00086	$1.4465 \cdot 10^{-4}$	$2.7420 \cdot 10^{-8}$
Kuwait	0.65	0.00626	$1.3401 \cdot 10^{-4}$	$1.2078 \cdot 10^{-8}$	0.00625	$8.5613 \cdot 10^{-5}$	$5.4528 \cdot 10^{-8}$	0.00624	$1.3344 \cdot 10^{-3}$	$2.6114 \cdot 10^{-6}$
Lebanon	0.10	0.00096	$3.7299 \cdot 10^{-5}$	$9.6505 \cdot 10^{-10}$	0.00096	$1.4803 \cdot 10^{-4}$	$1.9552 \cdot 10^{-9}$	0.00097	$2.9085 \cdot 10^{-4}$	$1.6354 \cdot 10^{-7}$
Libya	0.53	0.00511	$1.4118 \cdot 10^{-4}$	$1.0304 \cdot 10^{-8}$	0.00510	$2.5743 \cdot 10^{-4}$	$5.4423 \cdot 10^{-8}$	0.00508	$1.8099 \cdot 10^{-4}$	$4.2645 \cdot 10^{-7}$
Maldives	0.02	0.00019	$3.0366 \cdot 10^{-5}$	$4.0327 \cdot 10^{-11}$	0.00019	$8.6029 \cdot 10^{-6}$	$2.1370 \cdot 10^{-9}$	0.00020	$9.1180 \cdot 10^{-5}$	$7.8901 \cdot 10^{-10}$
Oman	0.10	0.00096	$2.0774 \cdot 10^{-5}$	$1.0332 \cdot 10^{-9}$	0.00096	$7.3186 \cdot 10^{-5}$	$2.2382 \cdot 10^{-9}$	0.00097	$2.0460 \cdot 10^{-4}$	$1.5611 \cdot 10^{-8}$
Qatar	0.13	0.00125	$1.7828 \cdot 10^{-5}$	$1.9826 \cdot 10^{-9}$	0.00125	$2.4525 \cdot 10^{-4}$	$2.2100 \cdot 10^{-8}$	0.00126	$7.2235 \cdot 10^{-5}$	$3.8196 \cdot 10^{-8}$
Syrian Arab Republic	0.15	0.00145	$6.8948 \cdot 10^{-5}$	$2.0733 \cdot 10^{-9}$	0.00144	$1.6219 \cdot 10^{-4}$	$3.9812 \cdot 10^{-9}$	0.00144	$3.5143 \cdot 10^{-4}$	$2.6386 \cdot 10^{-8}$
United Arab Emirates	0.29	0.00280	$1.9269 \cdot 10^{-5}$	$7.7119 \cdot 10^{-9}$	0.00278	$3.0541 \cdot 10^{-4}$	$1.1438 \cdot 10^{-8}$	0.00281	$2.5791 \cdot 10^{-3}$	$5.5032 \cdot 10^{-8}$
Republic of Yemen	0.12	0.00116	$3.5880 \cdot 10^{-5}$	$2.7928 \cdot 10^{-9}$	0.00115	$2.0046 \cdot 10^{-5}$	$8.8167 \cdot 10^{-9}$	0.00116	$1.7460 \cdot 10^{-4}$	$1.9258 \cdot 10^{-8}$
China	2.94	0.02834	$1.1901 \cdot 10^{-5}$	$9.2216 \cdot 10^{-10}$	0.02825	$2.3315 \cdot 10^{-4}$	$3.3765 \cdot 10^{-8}$	0.02834	$3.0112 \cdot 10^{-4}$	$2.6293 \cdot 10^{-7}$
Russia	2.75	0.02646	$1.5020 \cdot 10^{-5}$	$8.6333 \cdot 10^{-10}$	0.02643	$1.6653 \cdot 10^{-4}$	$2.7804 \cdot 10^{-8}$	0.02631	$9.3232 \cdot 10^{-5}$	$1.9560 \cdot 10^{-7}$
Azerbaijan	0.09	0.00087	$2.6873 \cdot 10^{-5}$	$1.0754 \cdot 10^{-10}$	0.00086	$1.9193 \cdot 10^{-5}$	$1.8277 \cdot 10^{-9}$	0.00083	$1.8413 \cdot 10^{-4}$	$7.3015 \cdot 10^{-9}$
Kyrgyz Republic	0.05	0.00048	$2.9182 \cdot 10^{-6}$	$2.9395 \cdot 10^{-11}$	0.00048	$2.0421 \cdot 10^{-5}$	$4.0977 \cdot 10^{-10}$	0.00046	$1.4108 \cdot 10^{-5}$	$7.4026 \cdot 10^{-9}$
Poland	0.64	0.00615	$6.9040 \cdot 10^{-5}$	$9.9660 \cdot 10^{-10}$	0.00611	$2.7496 \cdot 10^{-6}$	$1.4457 \cdot 10^{-8}$	0.00618	$2.8133 \cdot 10^{-4}$	$2.3291 \cdot 10^{-7}$
Switzerland	1.60	0.01538	$3.8321 \cdot 10^{-5}$	$1.7265 \cdot 10^{-9}$	0.01540	$7.6169 \cdot 10^{-5}$	$3.3194 \cdot 10^{-8}$	0.01529	$3.5828 \cdot 10^{-4}$	$4.6305 \cdot 10^{-7}$
Tajikistan	0.05	0.00048	$3.0404 \cdot 10^{-6}$	$3.1133 \cdot 10^{-11}$	0.00048	$6.5475 \cdot 10^{-6}$	$7.3156 \cdot 10^{-10}$	0.00046	$3.5792 \cdot 10^{-5}$	$7.9407 \cdot 10^{-9}$
Turkmenistan	0.05	0.00048	$4.5811 \cdot 10^{-6}$	$3.0028 \cdot 10^{-11}$	0.00048	$7.1937 \cdot 10^{-5}$	$4.9491 \cdot 10^{-9}$	0.00046	$7.6300 \cdot 10^{-5}$	$3.3276 \cdot 10^{-9}$
Uzbekistan	0.14	0.00135	$1.2464 \cdot 10^{-5}$	$1.6316 \cdot 10^{-10}$	0.00135	$2.6503 \cdot 10^{-5}$	$2.4411 \cdot 10^{-9}$	0.00128	$1.5541 \cdot 10^{-4}$	$5.2220 \cdot 10^{-8}$
Brazil	1.41	0.01353	$2.1450 \cdot 10^{-5}$	$3.4512 \cdot 10^{-9}$	0.01357	$2.1520 \cdot 10^{-4}$	$3.1212 \cdot 10^{-7}$	0.01345	$2.0642 \cdot 10^{-4}$	$5.8892 \cdot 10^{-7}$
Colombia	0.37	0.00355	$2.2246 \cdot 10^{-5}$	$9.5314 \cdot 10^{-10}$	0.00353	$1.8900 \cdot 10^{-4}$	$5.1549 \cdot 10^{-9}$	0.00364	$2.4728 \cdot 10^{-4}$	$3.5422 \cdot 10^{-7}$
Dominican Republic	0.11	0.00106	$6.7439 \cdot 10^{-6}$	$1.9149 \cdot 10^{-10}$	0.00105	$5.1707 \cdot 10^{-5}$	$1.0663 \cdot 10^{-9}$	0.00108	$2.3343 \cdot 10^{-4}$	$1.7252 \cdot 10^{-8}$
Ecuador	0.15	0.00144	$7.8386 \cdot 10^{-6}$	$3.9378 \cdot 10^{-10}$	0.00144	$1.8283 \cdot 10^{-4}$	$1.6429 \cdot 10^{-8}$	0.00146	$4.3219 \cdot 10^{-4}$	$8.7929 \cdot 10^{-9}$
Guyana	0.05	0.00048	$5.2457 \cdot 10^{-7}$	$8.7588 \cdot 10^{-11}$	0.00048	$5.4165 \cdot 10^{-5}$	$3.0010 \cdot 10^{-9}$	0.00050	$1.3817 \cdot 10^{-4}$	$4.0620 \cdot 10^{-9}$
Haiti	0.04	0.00038	$7.3898 \cdot 10^{-6}$	$1.0457 \cdot 10^{-10}$	0.00039	$4.4629 \cdot 10^{-4}$	$2.6485 \cdot 10^{-7}$	0.00039	$9.1821 \cdot 10^{-5}$	$1.9849 \cdot 10^{-8}$
Panama	0.11	0.00106	$1.0599 \cdot 10^{-6}$	$1.9536 \cdot 10^{-10}$	0.00105	$3.9210 \cdot 10^{-5}$	$1.2460 \cdot 10^{-9}$	0.00108	$2.4284 \cdot 10^{-4}$	$1.1284 \cdot 10^{-7}$
Suriname	0.05	0.00048	$4.9437 \cdot 10^{-6}$	$8.0152 \cdot 10^{-11}$	0.00048	$7.7495 \cdot 10^{-6}$	$9.0973 \cdot 10^{-10}$	0.0005		

Country	Voting right	$q = 50\%$			$q = 70\%$			$q = 85\%$		
		O_i	Absolute error	Estimated variance	O_i	Absolute error	Estimated variance	O_i	Absolute error	Estimated variance
Benin	0.04	0.00038	$2.8232 \cdot 10^{-5}$	$1.0966 \cdot 10^{-9}$	0.00038	$4.9454 \cdot 10^{-6}$	$4.2723 \cdot 10^{-9}$	0.00038	$1.7128 \cdot 10^{-4}$	$4.1493 \cdot 10^{-9}$
Burkina Faso	0.04	0.00038	$4.1833 \cdot 10^{-5}$	$7.9376 \cdot 10^{-10}$	0.00038	$8.6707 \cdot 10^{-6}$	$6.5984 \cdot 10^{-9}$	0.00038	$1.1246 \cdot 10^{-4}$	$3.1050 \cdot 10^{-9}$
Cameroon	0.10	0.00095	$5.7451 \cdot 10^{-5}$	$5.4154 \cdot 10^{-8}$	0.00095	$5.3203 \cdot 10^{-4}$	$2.3245 \cdot 10^{-7}$	0.00097	$3.9904 \cdot 10^{-4}$	$1.3450 \cdot 10^{-8}$
Cape Verde	0.02	0.00019	$2.9384 \cdot 10^{-5}$	$1.7382 \cdot 10^{-9}$	0.00019	$9.0119 \cdot 10^{-6}$	$7.8773 \cdot 10^{-10}$	0.00019	$1.1581 \cdot 10^{-4}$	$1.9819 \cdot 10^{-10}$
Central African	0.04	0.00038	$1.3680 \cdot 10^{-4}$	$4.4554 \cdot 10^{-8}$	0.00038	$6.4862 \cdot 10^{-5}$	$7.0859 \cdot 10^{-10}$	0.00038	$2.1530 \cdot 10^{-4}$	$8.9532 \cdot 10^{-10}$
Chad	0.04	0.00038	$7.4719 \cdot 10^{-5}$	$2.8725 \cdot 10^{-10}$	0.00038	$6.6945 \cdot 10^{-5}$	$3.9472 \cdot 10^{-9}$	0.00038	$1.5065 \cdot 10^{-4}$	$3.0798 \cdot 10^{-9}$
Comoros	0.02	0.00019	$6.1306 \cdot 10^{-6}$	$1.5302 \cdot 10^{-9}$	0.00019	$4.5436 \cdot 10^{-5}$	$1.2677 \cdot 10^{-10}$	0.00019	$4.0296 \cdot 10^{-5}$	$1.4103 \cdot 10^{-9}$
Republic of Congo	0.05	0.00047	$9.6953 \cdot 10^{-5}$	$3.0309 \cdot 10^{-10}$	0.00047	$1.5061 \cdot 10^{-4}$	$3.6555 \cdot 10^{-10}$	0.00048	$2.5009 \cdot 10^{-4}$	$1.5256 \cdot 10^{-9}$
Côte d'Ivoire	0.16	0.00152	$2.4405 \cdot 10^{-4}$	$6.5345 \cdot 10^{-9}$	0.00152	$2.0728 \cdot 10^{-4}$	$1.8753 \cdot 10^{-8}$	0.00156	$6.2544 \cdot 10^{-4}$	$2.3991 \cdot 10^{-8}$
Djibouti	0.02	0.00019	$4.9823 \cdot 10^{-5}$	$5.9195 \cdot 10^{-11}$	0.00019	$5.5470 \cdot 10^{-5}$	$3.9930 \cdot 10^{-10}$	0.00019	$4.9377 \cdot 10^{-6}$	$5.5840 \cdot 10^{-9}$
Equatorial Guinea	0.03	0.00028	$4.2490 \cdot 10^{-5}$	$1.2422 \cdot 10^{-9}$	0.00028	$2.8380 \cdot 10^{-5}$	$2.0386 \cdot 10^{-9}$	0.00029	$2.8885 \cdot 10^{-4}$	$2.0583 \cdot 10^{-7}$
Gabon	0.08	0.00076	$2.0345 \cdot 10^{-4}$	$6.4329 \cdot 10^{-10}$	0.00076	$1.2498 \cdot 10^{-4}$	$1.2889 \cdot 10^{-8}$	0.00078	$1.5148 \cdot 10^{-3}$	$5.6859 \cdot 10^{-9}$
Guinea	0.06	0.00057	$8.1825 \cdot 10^{-5}$	$1.7356 \cdot 10^{-9}$	0.00057	$1.1663 \cdot 10^{-4}$	$4.5718 \cdot 10^{-9}$	0.00058	$7.0690 \cdot 10^{-5}$	$8.4372 \cdot 10^{-8}$
Guinea-Bissau	0.02	0.00019	$5.0084 \cdot 10^{-4}$	$3.0062 \cdot 10^{-7}$	0.00019	$2.4256 \cdot 10^{-4}$	$9.8293 \cdot 10^{-8}$	0.00019	$2.5180 \cdot 10^{-5}$	$1.2985 \cdot 10^{-8}$
Madagascar	0.07	0.00066	$1.5554 \cdot 10^{-4}$	$8.4653 \cdot 10^{-10}$	0.00066	$2.0458 \cdot 10^{-4}$	$9.3889 \cdot 10^{-10}$	0.00068	$2.7018 \cdot 10^{-4}$	$4.3678 \cdot 10^{-9}$
Mali	0.05	0.00047	$7.2397 \cdot 10^{-5}$	$8.5750 \cdot 10^{-9}$	0.00047	$2.5113 \cdot 10^{-5}$	$9.9333 \cdot 10^{-9}$	0.00048	$4.4956 \cdot 10^{-4}$	$2.9505 \cdot 10^{-7}$
Mauritania	0.04	0.00038	$1.0389 \cdot 10^{-5}$	$1.5974 \cdot 10^{-9}$	0.00038	$5.5075 \cdot 10^{-6}$	$2.1719 \cdot 10^{-9}$	0.00038	$9.8728 \cdot 10^{-5}$	$5.2309 \cdot 10^{-9}$
Mauritius	0.06	0.00057	$1.1541 \cdot 10^{-4}$	$7.4702 \cdot 10^{-10}$	0.00057	$1.1585 \cdot 10^{-4}$	$1.8955 \cdot 10^{-9}$	0.00058	$9.6260 \cdot 10^{-4}$	$9.7549 \cdot 10^{-7}$
Niger	0.04	0.00038	$3.1588 \cdot 10^{-5}$	$7.9545 \cdot 10^{-10}$	0.00038	$4.8760 \cdot 10^{-5}$	$1.5164 \cdot 10^{-9}$	0.00038	$1.2116 \cdot 10^{-4}$	$3.1250 \cdot 10^{-9}$
Rwanda	0.05	0.00047	$6.7059 \cdot 10^{-5}$	$6.7468 \cdot 10^{-9}$	0.00047	$8.5584 \cdot 10^{-5}$	$1.9901 \cdot 10^{-9}$	0.00048	$2.2503 \cdot 10^{-4}$	$1.0420 \cdot 10^{-9}$
Sao Tomé	0.02	0.00019	$1.3429 \cdot 10^{-5}$	$6.3430 \cdot 10^{-10}$	0.00019	$5.7625 \cdot 10^{-5}$	$4.1242 \cdot 10^{-10}$	0.00019	$1.1141 \cdot 10^{-4}$	$2.2293 \cdot 10^{-10}$
Senegal	0.09	0.00085	$1.9351 \cdot 10^{-4}$	$1.5079 \cdot 10^{-9}$	0.00085	$4.3116 \cdot 10^{-5}$	$1.6601 \cdot 10^{-8}$	0.00088	$1.9811 \cdot 10^{-5}$	$2.0721 \cdot 10^{-7}$
Togo	0.05	0.00047	$1.1034 \cdot 10^{-4}$	$2.0643 \cdot 10^{-10}$	0.00047	$1.0167 \cdot 10^{-4}$	$1.3617 \cdot 10^{-9}$	0.00048	$1.6000 \cdot 10^{-4}$	$3.1108 \cdot 10^{-9}$

Table B.9: Simulation results for the weighted majority game in the Owen value estimation.

B.1 Graphical results

Below, we graphically detail the absolute error in estimating the Owen value by using $q = 70\%$ and $q = 85\%$ in the weighted majority game of Alonso-Meijide and Bowles (2005).

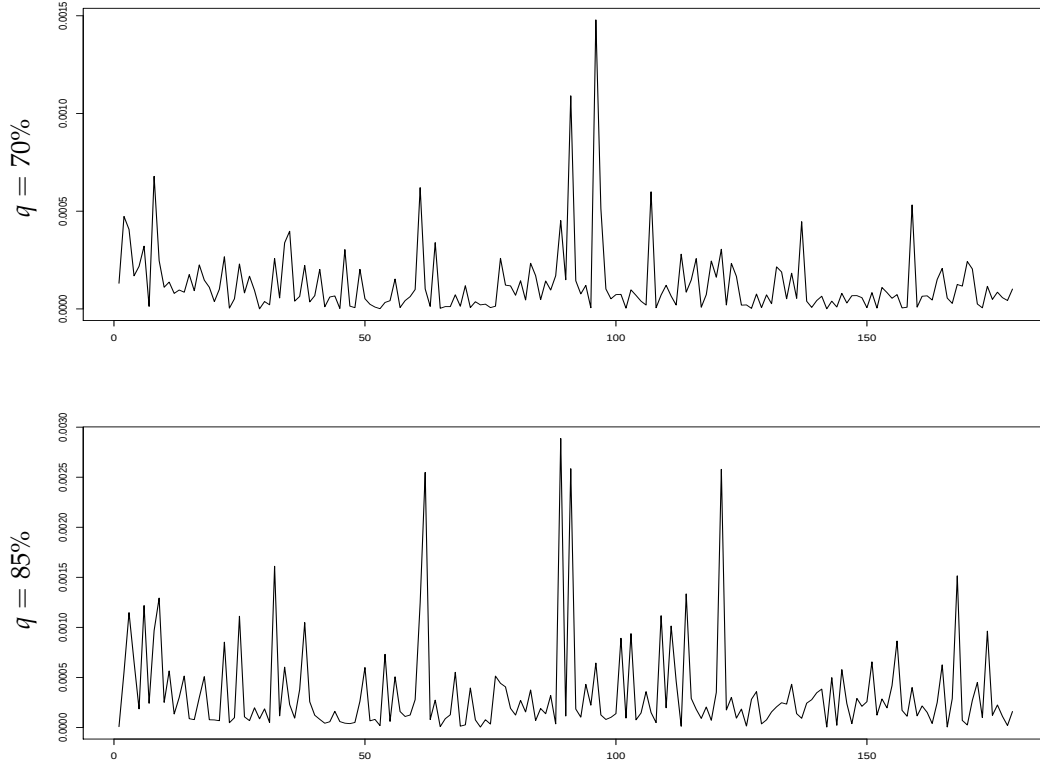


Figure B.3: Absolute error for the 179 players using stratified sampling in the Owen value estimation.

Finally, Figure B.4 depicts the violin plots of the 1000 errors obtained in the estimation of the Owen value for Austria and for $q = 50\%$, $q = 70\%$ and $q = 85\%$ with $\ell = 10^7$ by using stratified sampling.

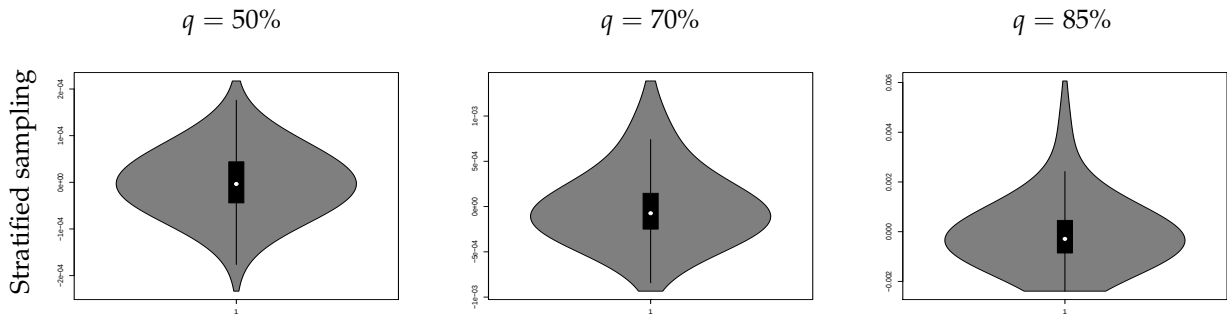


Figure B.4: Violin plots of the errors in 1000 estimations of the Owen value for $q = 50\%$, $q = 70\%$ and $q = 85\%$.

C Numerical results: the Owen value for the councils of A Coruña

Table C.10 shows the milk quotas for 82 councils in A Coruña in the period 2014-2015. Data were extracted from the website of *Consellería de Medio Rural de Xunta de Galicia* (<https://mediorural.xunta.gal/>). We also depict the results of the Owen value estimations with different sample sizes.

County	Council	Farms	Quota	Owen value	$\ell = 10^5$		$\ell = 10^6$		$\ell = 10^7$	
					O_1^{st}	Est. variance	O_1^{st}	Est. variance	O_1^{st}	Est. variance
A Barcala	A Baña	105	19253147	11400159	11380268.136	237264402.981	11394457.578	28167973.565	11397394.320	2691511.934
	Negreira	140	26551744	15721514	15735689.583	463724196.127	15731371.456	50952475.491	15723186.127	4807040.505
A Coruña	A Coruña	1	606673	357540.3	358706.743	920107.684	357219.494	93086.546	357532.314	9810.692
	Abegondo	27	2957506	1742928	1739408.555	34438608.092	1743460.387	2418430.928	1742001.888	228572.800
	Arteixo	15	3084636	1817851	1830373.503	59234372.209	1820666.460	2577905.540	1817887.414	246512.985
	Bergondo	3	360532	212479.1	213527.597	324009.384	212086.881	31677.814	212450.335	3590.074
	Cambre	16	2313154	1363183	1356055.972	10031148.763	1362117.657	1124389.540	1363127.535	149714.580
	Carral	17	2201589	1297435	1292138.395	8148329.698	1300075.244	1549906.846	1297393.324	135156.912
	Culleredo	7	869505	512436.6	511739.489	1884891.766	512328.376	241682.230	512604.589	21446.342
	Oleiros	1	180976	106657.9	106487.458	64362.325	106743.657	9145.317	106685.737	1010.854
	Arzúa	250	50811051	30366302	30428105.116	2654773557.407	30373249.883	348759699.654	30366798.153	30974213.841
	Boimorto	102	17949237	10726354	10730522.722	317957544.590	10733185.303	45954421.134	10730163.358	4962687.606
Bergantiños	O Pino	78	11176461	6679169	6682793.780	265110598.642	6685398.958	21237999.004	6680953.704	1999625.503
	Touro	111	23348929	13953126	14009992.364	1281141907.776	13946643.090	78190286.425	13954694.121	7483930.638
	A Laracha	105	13905151	8253767	8271188.669	550754258.986	8249201.369	40500143.221	8250577.889	5581682.614
	Cabana de Berg.	37	9509237	5644642	5628087.199	160428679.984	5652069.468	21311749.651	5644531.815	3135516.949
	Carballo	73	10655940	6325304	6332190.448	295740929.726	6334734.772	53412144.271	6324421.601	4183622.056
	Coristanco	65	10970444	6511953	6508091.969	196072134.086	6517703.474	27888835.206	6512164.669	3873801.588
	Laxe	7	592689	351772.2	353506.170	6135184.587	351533.549	82875.888	351833.321	9985.009
	Malpica de Berg.	15	2421117	1436972	1435647.623	18789184.063	1437913.491	1651576.242	1436708.458	153028.706
	Pontececeo	54	13537976	8035832	7999901.497	431436859.724	8033893.061	40898080.623	8040480.314	5231783.309
	Aranga	94	18626978	11094866	10920394.809	2375642402.708	11092473.911	562949508.408	11084556.393	45938848.740
Betanzos	Betanzos	2	199583	118876.5	119248.695	584599.032	118780.867	49227.290	118966.614	7419.540
	Cesuras	71	8784328	5232088	5186096.086	455652286.772	5236459.302	140292506.978	5229596.227	26042484.703
	Coirós	1	52966	31547.71	31529.075	25692.087	31490.037	4707.701	31604.834	1181.354
	Curtis	122	27152543	16174159	16257033.172	7025411235.265	16199715.683	1331640267.316	16146557.678	79229238.744
	Irixoa	63	8799154	5240919	5340490.103	1036115634.906	5246841.378	129828418.024	5235597.705	9356270.411
	Miño	8	1643428	978858.9	978215.0123	37238950.085	977005.461	5143346.955	978702.316	436517.132
	Oza dos Ríos	26	3032885	1806448	1805141.771	65678855.980	1808230.030	16191045.976	1806027.482	1424892.760
	Paderne	15	3391447	2020024	2036512.885	138534879.728	2025570.489	22822545.317	2018856.321	1636982.481
	Vilamaior	21	2270729	1352480	1346734.216	71141123.739	1351362.006	8424702.302	1353392.818	1014157.685
	Vilasantar	65	11073675	6595682	6651108.559	2399703023.288	6593556.021	138881519.468	6600979.951	18672270.057
Eume	A Capela	56	9049543	5348914.8	5340512.963	82579420.383	5353203.408	10348981.955	5349031.235	925917.875
	As Pontes	22	2212419	1307655.33	1309208.381	6220780.269	1306309.465	527342.861	1307436.122	59404.935
	Cabanas	7	779033	460473	461013.712	762474.690	460460.477	72029.292	460382.657	7324.706
	Monfero	159	21125185	12485329.8	12510855.539	463044882.204	12478025.624	46254244.190	12485379.283	4712035.945
	Ponte deume	4	496303	293355.1	293179.122	236472.538	293574.506	34538.407	293410.449	3249.659
	As Somozas	11	970062	571884.5	569733.213	3354735.024	572815.271	421781.381	571898.174	41829.388
	Fene	4	363962	214569	214223.498	373372.765	214569.069	67932.107	214535.723	5655.124
	Moeche	13	2623408	1546566	1553078.702	52576597.078	1543128.394	2048488.550	1547024.172	296946.898
	Mugardos	1	330711	194966.3	194590.335	423440.446	195158.774	56555.094	195030.294	4896.823
	Narón	8	1087991	641407.9	642029.396	4593936.482	642252.167	814890.433	640709.614	47513.561
Ferrol	Neda	3	369915	218078.5	218039.502	476316.441	218315.914	73434.591	218140.232	6122.319
	Ferrol	1	471831	278161.5	279410.714	825267.424	278276.963	83000.476	278199.790	9622.249
	San Sadurniño	35	7752548	4570197	4590073.925	482264330.667	4569154.616	25898703.507	4570750.154	2457598.112
	Valdoviño	9	947869	558801	558272.984	2922633.493	558970.112	415584.153	558838.680	38107.008
	Cee	5	544511	321810.8	322583.759	365462.512	321731.037	22033.754	321808.198	2318.770
	Dumbria	77	16275765	9619385	9610446.822	192543081.922	9620131.907	18181478.890	9618206.450	1842202.758
	Muxia	86	16694545	9866811	9851141.829	179272947.564	9863584.017	18772485.582	9867540.723	1963298.659
	Muros	1	38603	22713.98	22682.605	739.607	22709.723	80.211	22710.484	8.093
	Lousame	23	4918423	2896389	2887198.046	14116923.925	2896677.001	1485711.849	2896332.117	148839.178
	Noia	1	95521	56250.95	56164.904	5587.516	56254.906	578.682	56239.394	56.413
O Barbanza	Outes	21	1796511	1057947	1058561.713	2076149.296	1057657.629	198435.025	1057984.854	19687.659
	Rianxo	1	21320	12544.58	12522.377	228.251	12540.210	24.512	12542.165	2.462
	Ribeira	4	244889	144091.1	143917.285	33800.642	144100.003	3130.735	144062.749	324.946
	Cerceda	70	11547136	7126607	7154324.515	1163465938.540	7118570.018	70489151.936	7127481.148	7822327.329
	Frades	183	48950157	30211271	30203468.105	4323730177.164	30234517.057	1113296236.432	30202645.803	80038942.298
	Mesía	198	43066524	26579981	26502284.350	4816388832.919	26602239.828	743821230.433	26575082.906	66056409.900
	Ordes	170	2674213	16462980	16454585.471	1724480714.394	16491673.167	453578440.303	16469658.839	37975647.724
	Oroso	55	8543421	5272733	5267641.584	228338566.078	5266190.091	46511684.320	5271332.954	4186015.920
	Tordoia	202	37560049	23181591	23231828.080	4482993851.417	23174153.858	376527982.124	23180391.938	61196730.970
	Trazo	136	36161907	22318664	22480755.571	1826450909.709	22307715.233	326110082.478	22305337.366	45312289.040
Ortegal	Cerdido	6	1165265	685951.9	686766.530	795232.536	685435.599	78125.124	686003.146	8407.515
	Mañón	2	298197	175548.3	175385.972	51237.408	175539.933	5640.675	175561.807	546.947
	Ortigueira	10	3135175	1845835	1846702.394	5894083.033	1845433.194	608114.813	1845445.918	59345.761
	Ames	16	1958122	1163472	1161123.677	9892971.323	1162554.001	847209.457	1163715.339	115928.174
	Boqueixón	61	13523385	8036066	8031473.493	428107722.593	8039422.982	80744624.589	8033976.926	5274648.789
	Brion	57	12969246	7706740	7725921.934	439851842.769	7708786.521	47283620.285	7706082.373	4501283.738
	Santiago de Comp.	60	12528073	7444557	7446420.845	324591698.802	7451974.602	46635837.920	7442109.599	5261149.407
	Teo	14	1968363	1169557	1166507.841	7458755.273	1168963.197	1000951.878	1169191.945	130750.625
	Val do Dubra	117	22630365	13447803	13406719.428	1182212739.297	13450034.873	178914309.206	13453971.518	15713621.634
	Sar	Vedra	36	3439555	2043780	2043215.100	23490242.082	2046588.443	7898419.121	2043247.698
Padrón		3	1383377	815575.5	815139.483	1129386.511	815928.960	114593.634	815525.428	11283.590
Rois		68	13350368	7870037	7876931.310	105121699.281	7869426.177	9995747.082	7870321.787	999225.791
Melide		114	15579976	9233140	9227637.632	217918431.684	9239798.017	23084583.268	9234317.507	2497687.690
Santiso		115	17539229	10394108	10364936.748	230719789.114	10400370.169	41923475.938	10394595.915	3233401.396
Sobrado		91	11865545	7031538	7061385.184	444359661.957	7030356.716	12725906.862	7030735.374	1394132.753
Toques		66	6417981	3803181	3800693.678	36981737.015	3802084.337	4350193.470	3804132.119	442704.356
Vimianzo		129	22799899	13488825	13498730.139	3183974				