SUPPLEMENT TO "SIMULTANEOUS CONFIDENCE BANDS FOR THE DISTRIBUTION FUNCTION OF A FINITE POPULATION AND OF ITS SUPERPOPULATION" published in *TEST*

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Simulation results: tables and figures

(n_k, N_k)	SCB	0.99	0.95	0.90	0.80
$(100, 200)$	$F^*_{N_k}$,λ_k^{-1}	0.997 (0.996) 0.997	0.978 (0.973) 0.973	0.936 (0.931) 0.939	0.873 (0.850) 0.874
	F,λ_k^{-1}	0.873 (0.867) 0.941	0.719 (0.705) 0.850	0.633 (0.600) 0.775	0.468 (0.436) 0.670
	$F^*_{N_k}$,$n_k^{-1/2}$	1.000 (1.000) 1.000	0.999 (0.999) 1.000	0.998 (0.997) 0.998	0.991 (0.989) 0.991
	F,$n_k^{-1/2}$	0.989 (0.989) 0.998	0.962 (0.953) 0.988	0.908 (0.898) 0.967	0.832 (0.804) 0.915
$(60, 200)$	$F^*_{N_k}$,λ_k^{-1}	0.992 (0.989) 0.995	0.968 (0.964) 0.978	0.947 (0.931) 0.968	0.868 (0.839) 0.915
	F,λ_k^{-1}	0.965 (0.962) 0.986	0.876 (0.860) 0.953	0.805 (0.783) 0.907	0.701 (0.661) 0.839
	$F^*_{N_k}$,$n_k^{-1/2}$	1.000 (1.000) 1.000	0.992 (0.989) 0.996	0.981 (0.977) 0.989	0.958 (0.949) 0.972
	F,$n_k^{-1/2}$	0.992 (0.989) 0.998	0.966 (0.962) 0.986	0.918 (0.897) 0.972	0.845 (0.821) 0.936
$(100, 500)$	$F^*_{N_k}$,λ_k^{-1}	0.997 (0.997) 0.999	0.967 (0.962) 0.988	0.921 (0.911) 0.962	0.850 (0.821) 0.909
	F,λ_k^{-1}	0.985 (0.984) 0.996	0.940 (0.930) 0.979	0.872 (0.859) 0.951	0.768 (0.727) 0.901
	$F^*_{N_k}$,$n_k^{-1/2}$	1.000 (1.000) 1.000	0.986 (0.986) 0.996	0.969 (0.966) 0.990	0.913 (0.903) 0.958
	F,$n_k^{-1/2}$	0.995 (0.993) 0.997	0.976 (0.967) 0.993	0.940 (0.930) 0.981	0.863 (0.836) 0.947
$(60, 500)$	$F^*_{N_k}$,λ_k^{-1}	0.994 (0.991) 0.998	0.971 (0.962) 0.988	0.932 (0.918) 0.970	0.850 (0.826) 0.928
	F,λ_k^{-1}	0.991 (0.987) 0.998	0.951 (0.938) 0.981	0.907 (0.888) 0.965	0.817 (0.784) 0.924
	$F^*_{N_k}$,$n_k^{-1/2}$	0.998 (0.998) 1.000	0.985 (0.978) 0.990	0.953 (0.947) 0.983	0.900 (0.875) 0.954
	F,$n_k^{-1/2}$	0.996 (0.995) 1.000	0.968 (0.961) 0.992	0.934 (0.922) 0.975	0.862 (0.841) 0.947

Table S.1: Coverage frequencies summary of the standard normal distribution: left of the parentheses-$\hat{F}^*_k$ with h_1, right of the parentheses-$\hat{F}^*_k$ with h_2; inside the parentheses-$F^*_{n_k}$. Scenarios: $F^*_{N_k}$, λ_k^{-1}(corrected SCB for the finite population cdf); F, λ_k^{-1}(corrected SCB for the superpopulation cdf); $F^*_{N_k}$, $n_k^{-1/2}$(uncorrected SCB for the finite population cdf); F, $n_k^{-1/2}$(uncorrected SCB for the superpopulation cdf)

(n_k, N_k)	SCB	0.99	0.95	0.90	0.80
$(100, 200)$	$F^*_{N_k}$,λ_k^{-1}	0.992 (0.991) 0.991	0.973 (0.970) 0.972	0.932 (0.919) 0.933	0.869 (0.846) 0.867
	F,λ_k^{-1}	0.891 (0.884) 0.949	0.760 (0.740) 0.880	0.651 (0.616) 0.803	0.503 (0.471) 0.702
	$F^*_{N_k}$,$n_k^{-1/2}$	1.000 (1.000) 1.000	0.998 (0.998) 0.999	0.994 (0.995) 0.994	0.986 (0.985) 0.987
	F,$n_k^{-1/2}$	0.993 (0.992) 1.000	0.963 (0.955) 0.986	0.925 (0.906) 0.967	0.855 (0.829) 0.928
$(60, 200)$	$F^*_{N_k}$,λ_k^{-1}	0.991 (0.987) 0.998	0.960 (0.956) 0.974	0.919 (0.895) 0.945	0.850 (0.834) 0.900
	F,λ_k^{-1}	0.964 (0.958) 0.989	0.896 (0.881) 0.954	0.825 (0.784) 0.925	0.688 (0.645) 0.850
	$F^*_{N_k}$,$n_k^{-1/2}$	0.999 (0.998) 0.999	0.991 (0.987) 0.998	0.974 (0.969) 0.989	0.939 (0.927) 0.963
	F,$n_k^{-1/2}$	0.997 (0.993) 0.999	0.964 (0.957) 0.990	0.936 (0.917) 0.975	0.870 (0.839) 0.938
$(100, 500)$	$F^*_{N_k}$,λ_k^{-1}	0.993 (0.991) 0.998	0.966 (0.955) 0.984	0.924 (0.912) 0.964	0.837 (0.815) 0.912
	F,λ_k^{-1}	0.984 (0.981) 0.995	0.930 (0.912) 0.978	0.854 (0.835) 0.947	0.735 (0.705) 0.882
	$F^*_{N_k}$,$n_k^{-1/2}$	0.999 (0.999) 0.999	0.986 (0.984) 0.995	0.969 (0.960) 0.985	0.918 (0.906) 0.957
	F,$n_k^{-1/2}$	0.996 (0.995) 0.999	0.970 (0.965) 0.992	0.930 (0.915) 0.981	0.838 (0.818) 0.942
$(60, 500)$	$F^*_{N_k}$,λ_k^{-1}	0.995 (0.993) 0.999	0.965 (0.955) 0.984	0.916 (0.901) 0.964	0.847 (0.818) 0.919
	F,λ_k^{-1}	0.989 (0.988) 0.997	0.938 (0.927) 0.986	0.885 (0.872) 0.963	0.798 (0.768) 0.909
	$F^*_{N_k}$,$n_k^{-1/2}$	0.999 (0.998) 0.999	0.978 (0.971) 0.995	0.950 (0.934) 0.979	0.891 (0.868) 0.948
	F,$n_k^{-1/2}$	0.995 (0.991) 0.998	0.965 (0.959) 0.991	0.922 (0.904) 0.980	0.851 (0.819) 0.940

Table S.2: Coverage frequencies summary of the standard exponential distribution: left of the parentheses-$\hat{F}^*_k$ with h_1, right of the parentheses-$\hat{F}^*_k$ with h_2; inside the parentheses-$F^*_{n_k}$. Scenarios: $F^*_{N_k}$, λ_k^{-1}(corrected SCB for the finite population cdf); F, λ_k^{-1}(corrected SCB for the superpopulation cdf); $F^*_{N_k}$, $n_k^{-1/2}$(uncorrected SCB for the finite population cdf); F, $n_k^{-1/2}$(uncorrected SCB for the superpopulation cdf)

(n_k, N_k)	SCB	0.99	0.95	0.90	0.80
$(100, 200)$	$F^*_{N_k}$,λ_k^{-1}	0.996 (0.994) 0.996	0.969 (0.960) 0.968	0.929 (0.917) 0.933	0.857 (0.839) 0.858
	F,λ_k^{-1}	0.895 (0.884) 0.959	0.747 (0.724) 0.864	0.645 (0.622) 0.787	0.494 (0.464) 0.668
	$F^*_{N_k}$,$n_k^{-1/2}$	1.000 (1.000) 1.000	1.000 (1.000) 1.000	0.997 (0.998) 0.999	0.988 (0.983) 0.991
	F,$n_k^{-1/2}$	0.994 (0.994) 0.997	0.973 (0.965) 0.990	0.933 (0.912) 0.975	0.862 (0.828) 0.935
$(60, 200)$	$F^*_{N_k}$,λ_k^{-1}	0.996 (0.994) 0.998	0.974 (0.968) 0.985	0.940 (0.935) 0.963	0.880 (0.855) 0.913
	F,λ_k^{-1}	0.973 (0.967) 0.991	0.907 (0.884) 0.962	0.836 (0.805) 0.928	0.735 (0.691) 0.857
	$F^*_{N_k}$,$n_k^{-1/2}$	0.999 (0.999) 1.000	0.996 (0.994) 0.998	0.985 (0.980) 0.990	0.958 (0.945) 0.975
	F,$n_k^{-1/2}$	0.994 (0.994) 1.000	0.975 (0.966) 0.991	0.936 (0.923) 0.982	0.873 (0.845) 0.949
$(100, 500)$	$F^*_{N_k}$,λ_k^{-1}	0.993 (0.992) 0.996	0.955 (0.951) 0.979	0.907 (0.900) 0.946	0.846 (0.828) 0.902
	F,λ_k^{-1}	0.975 (0.972) 0.993	0.919 (0.913) 0.965	0.863 (0.848) 0.936	0.754 (0.730) 0.879
	$F^*_{N_k}$,$n_k^{-1/2}$	0.998 (0.997) 0.999	0.987 (0.981) 0.992	0.958 (0.951) 0.981	0.901 (0.889) 0.944
	F,$n_k^{-1/2}$	0.993 (0.993) 0.998	0.957 (0.946) 0.988	0.922 (0.914) 0.965	0.852 (0.835) 0.933
$(60, 500)$	$F^*_{N_k}$,λ_k^{-1}	0.996 (0.996) 0.999	0.971 (0.954) 0.985	0.924 (0.912) 0.965	0.852 (0.827) 0.920
	F,λ_k^{-1}	0.993 (0.985) 0.999	0.951 (0.932) 0.983	0.898 (0.874) 0.964	0.804 (0.763) 0.908
	$F^*_{N_k}$,$n_k^{-1/2}$	0.997 (0.997) 1.000	0.981 (0.976) 0.993	0.948 (0.941) 0.980	0.889 (0.875) 0.949
	F,$n_k^{-1/2}$	0.998 (0.997) 1.000	0.967 (0.962) 0.993	0.931 (0.921) 0.977	0.858 (0.830) 0.938

Table S.3: Coverage frequencies summary of the standard Cauchy distribution: left of the parentheses-$\hat{F}^*_k$ with h_1, right of the parentheses-$\hat{F}^*_k$ with h_2; inside the parentheses-$F^*_{n_k}$. Scenarios: $F^*_{N_k}$, λ_k^{-1}(corrected SCB for the finite population cdf); F, λ_k^{-1}(corrected SCB for the superpopulation cdf); $F^*_{N_k}$, $n_k^{-1/2}$(uncorrected SCB for the finite population cdf); F, $n_k^{-1/2}$(uncorrected SCB for the superpopulation cdf)

(n_k, N_k)	SCB	0.99	0.95	0.90	0.80
$(100, 200)$	$F^*_{N_k}$,λ_k^{-1}	0.996 (0.996) 0.996	0.968 (0.961) 0.974	0.929 (0.921) 0.932	0.856 (0.839) 0.859
	F,λ_k^{-1}	0.906 (0.889) 0.953	0.747 (0.729) 0.875	0.640 (0.602) 0.803	0.475 (0.434) 0.682
	$F^*_{N_k}$,$n_k^{-1/2}$	1.000 (1.000) 1.000	0.998 (0.998) 0.998	0.996 (0.996) 0.996	0.990 (0.988) 0.993
	F,$n_k^{-1/2}$	0.992 (0.992) 1.000	0.972 (0.965) 0.991	0.940 (0.923) 0.980	0.860 (0.841) 0.942
$(60, 200)$	$F^*_{N_k}$,λ_k^{-1}	0.996 (0.996) 0.997	0.980 (0.963) 0.989	0.926 (0.916) 0.965	0.862 (0.843) 0.908
	F,λ_k^{-1}	0.971 (0.967) 0.992	0.899 (0.889) 0.961	0.821 (0.798) 0.917	0.704 (0.668) 0.865
	$F^*_{N_k}$,$n_k^{-1/2}$	1.000 (1.000) 1.000	0.996 (0.996) 0.997	0.992 (0.985) 0.995	0.949 (0.936) 0.979
	F,$n_k^{-1/2}$	0.996 (0.996) 1.000	0.973 (0.965) 0.992	0.933 (0.918) 0.973	0.867 (0.837) 0.943
$(100, 500)$	$F^*_{N_k}$,λ_k^{-1}	0.996 (0.994) 0.997	0.966 (0.957) 0.986	0.927 (0.913) 0.962	0.846 (0.822) 0.907
	F,λ_k^{-1}	0.978 (0.975) 0.992	0.909 (0.900) 0.971	0.853 (0.842) 0.939	0.740 (0.712) 0.877
	$F^*_{N_k}$,$n_k^{-1/2}$	0.997 (0.997) 0.999	0.990 (0.988) 0.995	0.969 (0.963) 0.986	0.916 (0.903) 0.961
	F,$n_k^{-1/2}$	0.991 (0.990) 0.998	0.962 (0.957) 0.987	0.913 (0.900) 0.974	0.846 (0.824) 0.932
$(60, 500)$	$F^*_{N_k}$,λ_k^{-1}	0.993 (0.992) 0.997	0.962 (0.954) 0.984	0.927 (0.915) 0.964	0.868 (0.835) 0.928
	F,λ_k^{-1}	0.988 (0.984) 1.000	0.949 (0.937) 0.979	0.908 (0.889) 0.966	0.817 (0.777) 0.926
	$F^*_{N_k}$,$n_k^{-1/2}$	0.996 (0.996) 0.999	0.981 (0.978) 0.990	0.948 (0.937) 0.978	0.899 (0.887) 0.943
	F,$n_k^{-1/2}$	0.994 (0.993) 1.000	0.967 (0.962) 0.989	0.936 (0.926) 0.979	0.866 (0.843) 0.948

Table S.4: Coverage frequencies summary of Beta(1.5,1.5): Left of the parentheses-$\hat{F}^*_k$ with h_1, right of the parentheses-$\hat{F}^*_k$ with h_2; inside the parentheses-$F^*_{n_k}$. Scenarios: $F^*_{N_k}$, λ_k^{-1}(corrected SCB for the finite population cdf); F, λ_k^{-1}(corrected SCB for the superpopulation cdf); $F^*_{N_k}$, $n_k^{-1/2}$(uncorrected SCB for the finite population cdf); F, $n_k^{-1/2}$(uncorrected SCB for the superpopulation cdf)

(n_k, N_k)	SCB	0.99	0.95	0.90	0.80
$(100, 200)$	$F^*_{N_k}$,λ_k^{-1}	0.994 (0.994) 0.994	0.967 (0.961) 0.971	0.926 (0.917) 0.932	0.865 (0.847) 0.872
	F,λ_k^{-1}	0.872 (0.860) 0.947	0.732 (0.709) 0.867	0.606 (0.578) 0.796	0.468 (0.439) 0.672
	$F^*_{N_k}$,$n_k^{-1/2}$	1.000 (1.000) 1.000	0.999 (1.000) 0.999	0.997 (0.996) 0.998	0.984 (0.982) 0.988
	F,$n_k^{-1/2}$	0.998 (0.998) 0.998	0.969 (0.958) 0.992	0.910 (0.896) 0.976	0.841 (0.817) 0.923
$(60, 200)$	$F^*_{N_k}$,λ_k^{-1}	0.989 (0.986) 0.995	0.956 (0.949) 0.970	0.920 (0.906) 0.949	0.831 (0.805) 0.890
	F,λ_k^{-1}	0.957 (0.946) 0.983	0.885 (0.864) 0.946	0.805 (0.780) 0.912	0.704 (0.670) 0.838
	$F^*_{N_k}$,$n_k^{-1/2}$	0.998 (0.998) 1.000	0.989 (0.986) 0.995	0.979 (0.967) 0.985	0.937 (0.923) 0.957
	F,$n_k^{-1/2}$	0.991 (0.989) 0.996	0.957 (0.944) 0.983	0.925 (0.912) 0.966	0.840 (0.821) 0.934
$(100, 500)$	$F^*_{N_k}$,λ_k^{-1}	0.995 (0.995) 0.999	0.960 (0.946) 0.984	0.916 (0.909) 0.956	0.851 (0.829) 0.913
	F,λ_k^{-1}	0.980 (0.977) 0.994	0.920 (0.911) 0.973	0.853 (0.835) 0.943	0.750 (0.725) 0.877
	$F^*_{N_k}$,$n_k^{-1/2}$	1.000 (0.999) 1.000	0.991 (0.986) 0.995	0.966 (0.957) 0.984	0.911 (0.900) 0.951
	F,$n_k^{-1/2}$	0.993 (0.990) 0.999	0.967 (0.961) 0.991	0.927 (0.911) 0.976	0.839 (0.818) 0.940
$(60, 500)$	$F^*_{N_k}$,λ_k^{-1}	0.991 (0.990) 0.994	0.964 (0.957) 0.982	0.915 (0.896) 0.960	0.827 (0.800) 0.907
	F,λ_k^{-1}	0.982 (0.978) 0.992	0.941 (0.930) 0.978	0.885 (0.865) 0.953	0.791 (0.751) 0.910
	$F^*_{N_k}$,$n_k^{-1/2}$	0.995 (0.992) 0.998	0.977 (0.973) 0.990	0.950 (0.934) 0.976	0.872 (0.850) 0.942
	F,$n_k^{-1/2}$	0.990 (0.985) 0.997	0.964 (0.954) 0.982	0.920 (0.904) 0.969	0.841 (0.807) 0.933

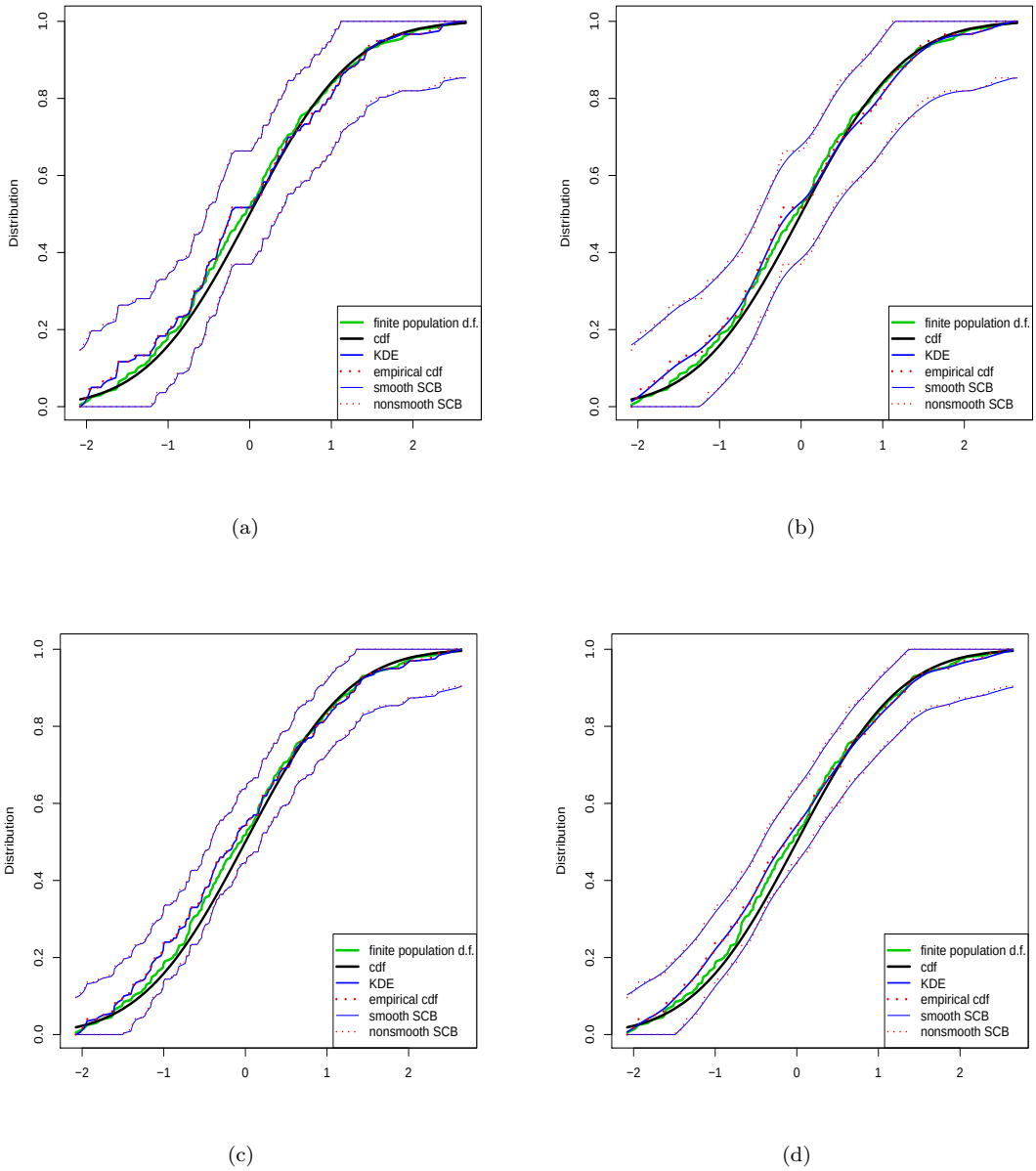
Table S.5: Coverage frequencies summary of Beta(1.2,1.8): Left of the parentheses-$\hat{F}^*_k$ with h_1, right of the parentheses-$\hat{F}^*_k$ with h_2; inside the parentheses-$F^*_{n_k}$. Scenarios: $F^*_{N_k}$, λ_k^{-1}(corrected SCB for the finite population cdf); F, λ_k^{-1}(corrected SCB for the superpopulation cdf); $F^*_{N_k}$, $n_k^{-1/2}$(uncorrected SCB for the finite population cdf); F, $n_k^{-1/2}$(uncorrected SCB for the superpopulation cdf)

n_k	SCB	0.99	0.95	0.90	0.80
50	$F^*_{N_k}$,λ_k^{-1}	0.995 (0.988) 0.996	0.962 (0.953) 0.985	0.923 (0.902) 0.969	0.838 (0.822) 0.933
	F,λ_k^{-1}	0.993 (0.989) 0.998	0.962 (0.948) 0.987	0.918 (0.898) 0.968	0.841 (0.805) 0.929
	$F^*_{N_k}$,$n_k^{-1/2}$	0.995 (0.989) 0.997	0.965 (0.954) 0.986	0.926 (0.903) 0.970	0.842 (0.823) 0.933
	F,$n_k^{-1/2}$	0.993 (0.991) 0.999	0.963 (0.950) 0.987	0.922 (0.901) 0.969	0.846 (0.806) 0.933
250	$F^*_{N_k}$,λ_k^{-1}	0.994 (0.994) 0.999	0.965 (0.964) 0.986	0.924 (0.914) 0.967	0.829 (0.806) 0.921
	F,λ_k^{-1}	0.992 (0.992) 0.999	0.956 (0.949) 0.985	0.904 (0.896) 0.968	0.805 (0.789) 0.918
	$F^*_{N_k}$,$n_k^{-1/2}$	0.996 (0.996) 0.999	0.971 (0.968) 0.990	0.940 (0.930) 0.975	0.852 (0.839) 0.930
	F,$n_k^{-1/2}$	0.993 (0.993) 0.999	0.966 (0.958) 0.992	0.923 (0.910) 0.977	0.825 (0.812) 0.928
500	$F^*_{N_k}$,λ_k^{-1}	0.993 (0.993) 0.997	0.965 (0.960) 0.986	0.904 (0.895) 0.961	0.813 (0.803) 0.895
	F,λ_k^{-1}	0.984 (0.983) 0.994	0.939 (0.933) 0.977	0.879 (0.871) 0.946	0.778 (0.760) 0.881
	$F^*_{N_k}$,$n_k^{-1/2}$	0.995 (0.995) 0.998	0.980 (0.978) 0.990	0.938 (0.931) 0.974	0.852 (0.846) 0.924
	F,$n_k^{-1/2}$	0.992 (0.991) 0.998	0.958 (0.955) 0.982	0.910 (0.902) 0.962	0.831 (0.812) 0.909
1000	$F^*_{N_k}$,λ_k^{-1}	0.995 (0.995) 0.998	0.958 (0.958) 0.979	0.921 (0.917) 0.949	0.828 (0.822) 0.886
	F,λ_k^{-1}	0.978 (0.974) 0.990	0.916 (0.914) 0.960	0.847 (0.841) 0.923	0.709 (0.704) 0.848
	$F^*_{N_k}$,$n_k^{-1/2}$	0.998 (0.998) 0.999	0.984 (0.984) 0.995	0.960 (0.958) 0.981	0.908 (0.904) 0.944
	F,$n_k^{-1/2}$	0.993 (0.992) 0.999	0.961 (0.959) 0.987	0.918 (0.915) 0.961	0.831 (0.822) 0.915
4000	$F^*_{N_k}$,λ_k^{-1}	0.993 (0.992) 0.986	0.954 (0.957) 0.933	0.907 (0.904) 0.863	0.816 (0.816) 0.751
	F,λ_k^{-1}	0.373 (0.370) 0.525	0.174 (0.174) 0.303	0.078 (0.080) 0.201	0.025 (0.025) 0.102
	$F^*_{N_k}$,$n_k^{-1/2}$	1.000 (1.000) 1.000	1.000 (1.000) 1.000	1.000 (1.000) 1.000	1.000 (1.000) 1.000
	F,$n_k^{-1/2}$	0.998 (0.998) 1.000	0.957 (0.954) 0.984	0.908 (0.910) 0.948	0.805 (0.805) 0.896

Table S.6: Coverage frequencies of the standard normal distribution by the corrected and uncorrected SCBs with fixed finite population size $N_k = 5000$ and changing sample sizes: left of the parentheses-$\hat{F}^*_k$ with h_1, right of the parentheses-$\hat{F}^*_k$ with h_2; inside the parentheses-$F^*_{n_k}$, for $F^*_{N_k}$ and F, respectively. Scenarios: $F^*_{N_k}$, λ_k^{-1}(corrected SCB for the finite population cdf); F, λ_k^{-1}(corrected SCB for the superpopulation cdf); $F^*_{N_k}$, $n_k^{-1/2}$(uncorrected SCB for the finite population cdf); F, $n_k^{-1/2}$(uncorrected SCB for the superpopulation cdf)

N_k	SCB	0.99	0.95	0.90	0.80
120	$F^*_{N_k}$,λ_k^{-1}	0.996 (0.994) 0.998	0.965 (0.961) 0.980	0.948 (0.937) 0.947	0.863 (0.828) 0.895
	F,λ_k^{-1}	0.917 (0.906) 0.967	0.815 (0.788) 0.903	0.695 (0.655) 0.851	0.519 (0.473) 0.747
	$F^*_{N_k}$,$n_k^{-1/2}$	1.000 (1.000) 1.000	1.000 (1.000) 1.000	0.999 (0.999) 1.000	0.990 (0.988) 0.995
	F,$n_k^{-1/2}$	0.997 (0.996) 1.000	0.978 (0.967) 0.992	0.955 (0.938) 0.981	0.888 (0.874) 0.954
200	$F^*_{N_k}$,λ_k^{-1}	0.992 (0.989) 0.995	0.968 (0.964) 0.978	0.947 (0.931) 0.968	0.868 (0.839) 0.915
	F,λ_k^{-1}	0.965 (0.962) 0.986	0.876 (0.860) 0.953	0.805 (0.783) 0.907	0.701 (0.661) 0.839
	$F^*_{N_k}$,$n_k^{-1/2}$	1.000 (1.000) 1.000	0.992 (0.989) 0.996	0.981 (0.977) 0.989	0.958 (0.949) 0.972
	F,$n_k^{-1/2}$	0.992 (0.989) 0.998	0.966 (0.962) 0.986	0.918 (0.897) 0.972	0.845 (0.821) 0.936
600	$F^*_{N_k}$,λ_k^{-1}	0.995 (0.993) 0.998	0.963 (0.955) 0.989	0.910 (0.896) 0.970	0.826 (0.800) 0.915
	F,λ_k^{-1}	0.992 (0.990) 0.998	0.943 (0.927) 0.985	0.885 (0.863) 0.957	0.790 (0.759) 0.912
	$F^*_{N_k}$,$n_k^{-1/2}$	0.997 (0.996) 0.999	0.980 (0.973) 0.992	0.944 (0.932) 0.980	0.870 (0.851) 0.943
	F,$n_k^{-1/2}$	0.995 (0.994) 1.000	0.961 (0.952) 0.993	0.918 (0.899) 0.974	0.832 (0.809) 0.935
2000	$F^*_{N_k}$,λ_k^{-1}	0.991 (0.989) 1.000	0.969 (0.958) 0.988	0.926 (0.905) 0.973	0.842 (0.815) 0.941
	F,λ_k^{-1}	0.991 (0.989) 1.000	0.962 (0.951) 0.991	0.911 (0.897) 0.973	0.838 (0.805) 0.939
	$F^*_{N_k}$,$n_k^{-1/2}$	0.995 (0.991) 1.000	0.971 (0.968) 0.990	0.933 (0.916) 0.976	0.852 (0.830) 0.945
	F,$n_k^{-1/2}$	0.994 (0.990) 1.000	0.966 (0.955) 0.991	0.920 (0.903) 0.975	0.849 (0.817) 0.944
10000	$F^*_{N_k}$,λ_k^{-1}	0.992 (0.991) 0.998	0.967 (0.961) 0.988	0.935 (0.920) 0.971	0.847 (0.803) 0.945
	F,λ_k^{-1}	0.992 (0.991) 0.999	0.967 (0.961) 0.989	0.937 (0.914) 0.973	0.843 (0.805) 0.947
	$F^*_{N_k}$,$n_k^{-1/2}$	0.993 (0.991) 0.998	0.968 (0.962) 0.988	0.939 (0.923) 0.972	0.849 (0.809) 0.946
	F,$n_k^{-1/2}$	0.993 (0.991) 0.999	0.967 (0.962) 0.989	0.938 (0.916) 0.974	0.845 (0.807) 0.950

Table S.7: Coverage frequencies of the standard normal distribution by the corrected and uncorrected SCBs with fixed sample size $n_k = 60$ and changing population sizes: left of the parentheses-$\hat{F}^*_k$ with h_1, right of the parentheses-$\hat{F}^*_k$ with h_2; inside the parentheses-$F^*_{n_k}$, for $F^*_{N_k}$ and F, respectively. Scenarios: $F^*_{N_k}$, λ_k^{-1}(corrected SCB for the finite population cdf); F, λ_k^{-1}(corrected SCB for the superpopulation cdf); $F^*_{N_k}$, $n_k^{-1/2}$(uncorrected SCB for the finite population cdf); F, $n_k^{-1/2}$(uncorrected SCB for the superpopulation cdf)



(a) (b)

(c) (d)

Figure S.1: Standard normal distribution: corrected SCBs constructed at $\alpha = 0.05$. (a) and (b): $(n_k, N_k) = (60, 200)$) using bandwidth h_1; (c) and (d): $(n_k, N_k) = (100, 200)$ using bandwidth h_2

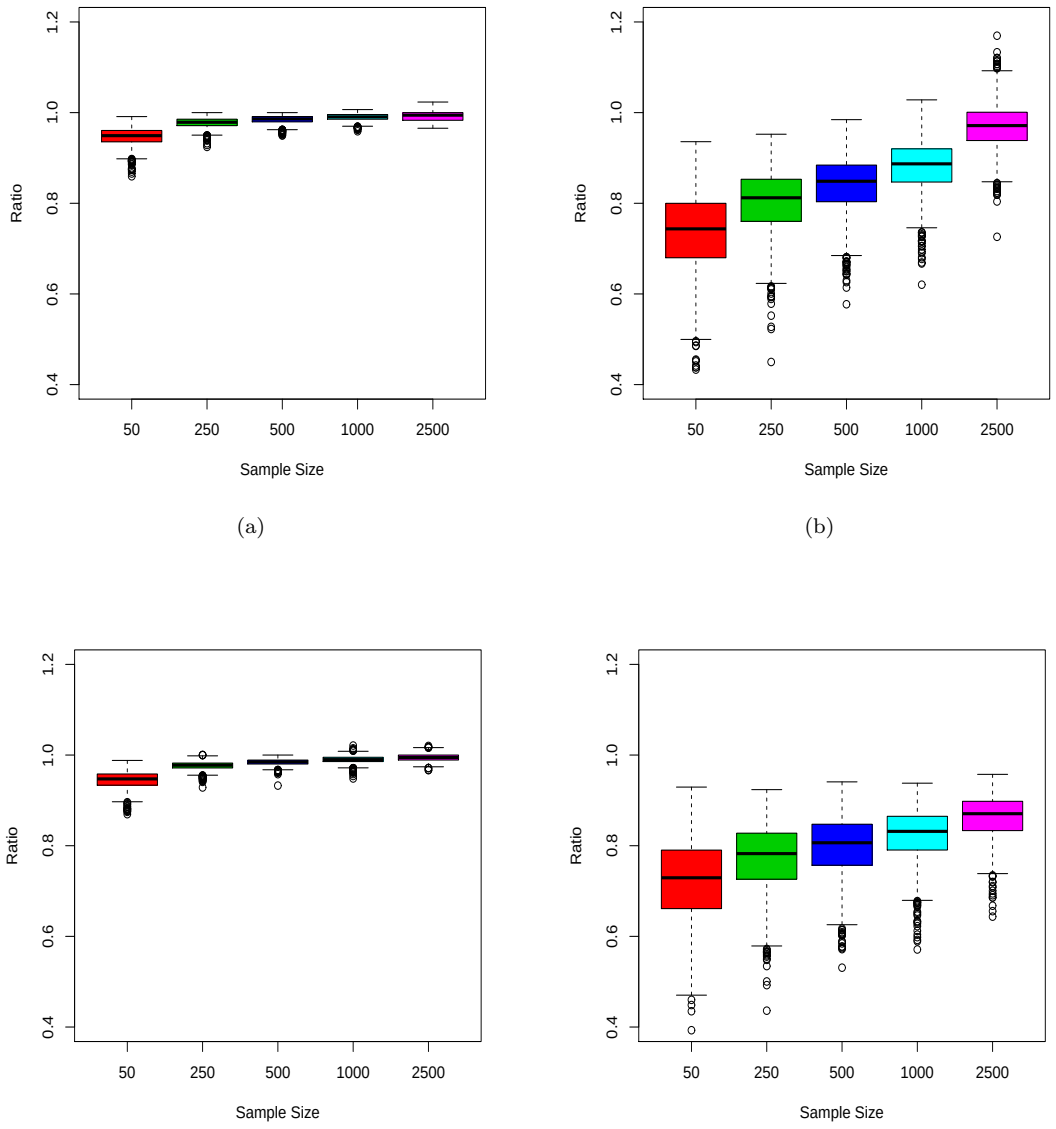


Figure S.2: Ratios of $D(\hat{F}_k^*, F_{N_k}^*)/D(F_{n_k}^*, F_{N_k}^*)$ and $D(\hat{F}_k^*, F)/D(F_{n_k}^*, F)$ for the standard normal distribution with fixed finite population size $N = 5000$ for the corrected version of the estimates. (a): $D(\hat{F}_k^*, F_{N_k}^*)/D(F_{n_k}^*, F_{N_k}^*)$ with bandwidth h_1; (b): $D(\hat{F}_k^*, F_{N_k}^*)/D(F_{n_k}^*, F_{N_k}^*)$ with bandwidth h_2. (c): $D(\hat{F}_k^*, F)/D(F_{n_k}^*, F)$ with bandwidth h_1; (d): $D(\hat{F}_k^*, F)/D(F_{n_k}^*, F)$ with bandwidth h_2