

Testing one percentage for "expected variance"

Based on universe/population size of: 4,000																											
Percentage being tested	Sample size	5% 10	5% 25	5% 50	5% 75	5% 100	5% 125	5% 150	5% 175	5% 200	5% 250	5% 300	5% 400	5% 500	5% 600	5% 700	5% 800	5% 900	5% 1000	5% 1250	5% 1500	5% 1750	5% 2000	5% 2250	5% 2500	5% 2750	5% 3000
90% confidence: true proportion will be within +/-		11.3%	7.1%	5.0%	4.1%	3.5%	3.1%	2.9%	2.6%	2.5%	2.2%	2.0%	1.7%	1.5%	1.3%	1.2%	1.1%	1.0%	1.0%	0.8%	0.7%	0.6%	0.6%	0.5%	0.4%	0.4%	0.3%
95% confidence: true proportion will be within +/-		13.5%	8.5%	6.0%	4.9%	4.2%	3.8%	3.4%	3.2%	2.9%	2.6%	2.4%	2.0%	1.8%	1.6%	1.5%	1.4%	1.3%	1.2%	1.0%	0.9%	0.8%	0.7%	0.6%	0.5%	0.5%	0.4%
99% confidence: true proportion will be within +/-		17.8%	11.2%	7.9%	6.4%	5.6%	5.0%	4.5%	4.2%	3.9%	3.4%	3.1%	2.7%	2.4%	2.1%	1.9%	1.8%	1.7%	1.5%	1.3%	1.1%	1.0%	0.9%	0.8%	0.7%	0.6%	0.5%
Percentage being tested	Sample size	10% 10	10% 25	10% 50	10% 75	10% 100	10% 125	10% 150	10% 175	10% 200	10% 250	10% 300	10% 400	10% 500	10% 600	10% 700	10% 800	10% 900	10% 1000	10% 1250	10% 1500	10% 1750	10% 2000	10% 2250	10% 2500	10% 2750	10% 3000
90% confidence: true proportion will be within +/-		15.5%	9.8%	6.9%	5.6%	4.9%	4.3%	3.9%	3.6%	3.4%	3.0%	2.7%	2.3%	2.1%	1.9%	1.7%	1.6%	1.4%	1.3%	1.2%	1.0%	0.9%	0.8%	0.7%	0.6%	0.5%	0.4%
95% confidence: true proportion will be within +/-		18.6%	11.7%	8.3%	6.7%	5.8%	5.2%	4.7%	4.3%	4.1%	3.6%	3.3%	2.8%	2.5%	2.2%	2.0%	1.9%	1.7%	1.6%	1.4%	1.2%	1.1%	0.9%	0.8%	0.7%	0.6%	0.5%
99% confidence: true proportion will be within +/-		24.4%	15.4%	10.9%	8.9%	7.6%	6.8%	6.2%	5.7%	5.3%	4.7%	4.3%	3.7%	3.2%	2.9%	2.7%	2.4%	2.3%	2.1%	1.8%	1.6%	1.4%	1.2%	1.1%	0.9%	0.8%	0.7%
Percentage being tested	Sample size	15% 10	15% 25	15% 50	15% 75	15% 100	15% 125	15% 150	15% 175	15% 200	15% 250	15% 300	15% 400	15% 500	15% 600	15% 700	15% 800	15% 900	15% 1000	15% 1250	15% 1500	15% 1750	15% 2000	15% 2250	15% 2500	15% 2750	15% 3000
90% confidence: true proportion will be within +/-		18.5%	11.7%	8.2%	6.7%	5.8%	5.2%	4.7%	4.3%	4.0%	3.6%	3.3%	2.8%	2.4%	2.2%	2.0%	1.9%	1.7%	1.6%	1.4%	1.2%	1.0%	0.9%	0.8%	0.7%	0.6%	0.5%
95% confidence: true proportion will be within +/-		22.1%	14.0%	9.8%	8.0%	6.9%	6.2%	5.6%	5.2%	4.8%	4.3%	3.9%	3.3%	2.9%	2.6%	2.4%	2.2%	2.1%	1.9%	1.6%	1.4%	1.3%	1.1%	1.0%	0.9%	0.7%	0.6%
99% confidence: true proportion will be within +/-		29.1%	18.4%	12.9%	10.5%	9.1%	8.1%	7.4%	6.8%	6.3%	5.6%	5.1%	4.4%	3.9%	3.5%	3.2%	2.9%	2.7%	2.5%	2.2%	1.9%	1.7%	1.5%	1.3%	1.1%	1.0%	0.8%
Percentage being tested	Sample size	20% 10	20% 25	20% 50	20% 75	20% 100	20% 125	20% 150	20% 175	20% 200	20% 250	20% 300	20% 400	20% 500	20% 600	20% 700	20% 800	20% 900	20% 1000	20% 1250	20% 1500	20% 1750	20% 2000	20% 2250	20% 2500	20% 2750	20% 3000
90% confidence: true proportion will be within +/-		20.7%	13.1%	9.2%	7.5%	6.5%	5.8%	5.3%	4.8%	4.5%	4.0%	3.6%	3.1%	2.7%	2.5%	2.3%	2.1%	1.9%	1.8%	1.5%	1.3%	1.2%	1.0%	0.9%	0.8%	0.7%	0.6%
95% confidence: true proportion will be within +/-		24.8%	15.6%	11.0%	9.0%	7.7%	6.9%	6.3%	5.8%	5.4%	4.8%	4.4%	3.7%	3.3%	3.0%	2.7%	2.5%	2.3%	2.1%	1.8%	1.6%	1.4%	1.2%	1.1%	1.0%	0.8%	0.7%
99% confidence: true proportion will be within +/-		32.6%	20.6%	14.5%	11.8%	10.2%	9.1%	8.3%	7.6%	7.1%	6.3%	5.7%	4.9%	4.3%	3.9%	3.5%	3.3%	3.0%	2.8%	2.4%	2.1%	1.9%	1.6%	1.4%	1.3%	1.1%	0.9%
Percentage being tested	Sample size	25% 10	25% 25	25% 50	25% 75	25% 100	25% 125	25% 150	25% 175	25% 200	25% 250	25% 300	25% 400	25% 500	25% 600	25% 700	25% 800	25% 900	25% 1000	25% 1250	25% 1500	25% 1750	25% 2000	25% 2250	25% 2500	25% 2750	25% 3000
90% confidence: true proportion will be within +/-		22.4%	14.2%	10.0%	8.1%	7.0%	6.3%	5.7%	5.2%	4.9%	4.3%	3.9%	3.4%	3.0%	2.7%	2.4%	2.2%	2.1%	1.9%	1.7%	1.4%	1.3%	1.1%	1.0%	0.9%	0.8%	0.6%
95% confidence: true proportion will be within +/-		26.8%	16.9%	11.9%	9.7%	8.4%	7.5%	6.8%	6.3%	5.8%	5.2%	4.7%	4.0%	3.6%	3.2%	2.9%	2.7%	2.5%	2.3%	2.0%	1.7%	1.5%	1.3%	1.2%	1.0%	0.9%	0.8%
99% confidence: true proportion will be within +/-		35.3%	22.3%	15.7%	12.8%	11.0%	9.8%	8.9%	8.3%	7.7%	6.8%	6.2%	5.3%	4.7%	4.2%	3.8%	3.5%	3.3%	3.1%	2.6%	2.3%	2.0%	1.8%	1.6%	1.4%	1.2%	1.0%
Percentage being tested	Sample size	30% 10	30% 25	30% 50	30% 75	30% 100	30% 125	30% 150	30% 175	30% 200	30% 250	30% 300	30% 400	30% 500	30% 600	30% 700	30% 800	30% 900	30% 1000	30% 1250	30% 1500	30% 1750	30% 2000	30% 2250	30% 2500	30% 2750	30% 3000
90% confidence: true proportion will be within +/-		23.7%	15.0%	10.6%	8.6%	7.4%	6.6%	6.0%	5.6%	5.2%	4.6%	4.2%	3.6%	3.1%	2.8%	2.6%	2.4%	2.2%	2.1%	1.8%	1.5%	1.3%	1.2%	1.0%	0.9%	0.8%	0.7%
95% confidence: true proportion will be within +/-		28.4%	17.9%	12.6%	10.3%	8.9%	7.9%	7.2%	6.6%	6.2%	5.5%	5.0%	4.3%	3.8%	3.4%	3.1%	2.8%	2.6%	2.5%	2.1%	1.8%	1.6%	1.4%	1.3%	1.1%	1.0%	0.8%
99% confidence: true proportion will be within +/-		37.3%	23.6%	16.6%	13.5%	11.7%	10.4%	9.5%	8.7%	8.1%	7.2%	6.6%	5.6%	4.9%	4.5%	4.1%	3.7%	3.5%	3.2%	2.8%	2.4%	2.1%	1.9%	1.6%	1.4%	1.3%	1.1%
Percentage being tested	Sample size	35% 10	35% 25	35% 50	35% 75	35% 100	35% 125	35% 150	35% 175	35% 200	35% 250	35% 300	35% 400	35% 500	35% 600	35% 700	35% 800	35% 900	35% 1000	35% 1250	35% 1500	35% 1750	35% 2000	35% 2250	35% 2500	35% 2750	35% 3000
90% confidence: true proportion will be within +/-		24.7%	15.6%	11.0%	8.9%	7.7%	6.9%	6.3%	5.8%	5.4%	4.8%	4.3%	3.7%	3.3%	2.9%	2.7%	2.5%	2.3%	2.1%	1.8%	1.6%	1.4%	1.2%	1.1%	1.0%	0.8%	0.7%
95% confidence: true proportion will be within +/-		29.5%	18.6%	13.1%	10.7%	9.2%	8.2%	7.5%	6.9%	6.4%	5.7%	5.2%	4.4%	3.9%	3.5%	3.2%	3.0%	2.7%	2.6%	2.2%	1.9%	1.7%	1.5%	1.3%	1.1%	1.0%	0.9%
99% confidence: true proportion will be within +/-		38.9%	24.5%	17.3%	14.1%	12.2%	10.8%	9.9%	9.1%	8.5%	7.5%	6.8%	5.8%	5.1%	4.6%	4.2%	3.9%	3.6%	3.4%	2.9%	2.5%	2.2%	1.9%	1.7%	1.5%	1.3%	1.1%
Percentage being tested	Sample size	40% 10	40% 25	40% 50	40% 75	40% 100	40% 125	40% 150	40% 175	40% 200	40% 250	40% 300	40% 400	40% 500	40% 600	40% 700	40% 800	40% 900	40% 1000	40% 1250	40% 1500	40% 1750	40% 2000	40% 2250	40% 2500	40% 2750	40% 3000
90% confidence: true proportion will be within +/-		25.4%	16.0%	11.3%	9.2%	7.9%	7.1%	6.4%	5.9%	5.5%	4.9%	4.5%	3.8%	3.4%	3.0%	2.8%	2.5%	2.4%	2.2%	1.9%	1.6%	1.4%	1.3%	1.1%	1.0%	0.9%	0.7%
95% confidence: true proportion will be within +/-		30.3%	19.1%	13.5%	11.0%	9.5%	8.5%	7.7%	7.1%	6.6%	5.9%	5.3%	4.6%	4.0%	3.6%	3.3%	3.0%	2.8%	2.6%	2.3%	2.0%	1.7%	1.5%	1.3%	1.2%	1.0%	0.9%
99% confidence: true proportion will be within +/-		39.9%	25.2%	17.8%	14.5%	12.5%	11.1%	10.1%	9.3%	8.7%	7.7%	7.0%	6.0%	5.3%	4.8%	4.3%	4.0%	3.7%	3.5%	3.0%	2.6%	2.3%	2.0%	1.8%	1.5%	1.3%	1.2%
Percentage being tested	Sample size	45% 10	45% 25	45% 50	45% 75	45% 100	45% 125	45% 150	45% 175	45% 200	45% 250	45% 300	45% 400	45% 500	45% 600	45% 700	45% 800	45% 900	45% 1000	45% 1250	45% 1500	45% 1750	45% 2000	45% 2250	45% 2500	45% 2750	45% 3000
90% confidence: true proportion will be within +/-		25.8%	16.3%	11.5%	9.3%	8.1%	7.2%	6.5%	6.0%	5.6%	5.0%	4.5%	3.9%	3.4%	3.1%	2.8%	2.6%	2.4%	2.2%	1.9%	1.7%	1.5%	1.3%	1.1%	1.0%	0.9%	0.7%
95% confidence: true proportion will be within +/-		30.8%	19.4%	13.7%	11.2%	9.6%	8.6%	7.8%	7.2%	6.7%	6.0%	5.4%	4.6%	4.1%	3.7%	3.3%	3.1%	2.9%	2.7%	2.3%	2.0%	1.7%	1.5%	1.4%	1.2%	1.0%	0.9%
99% confidence: true proportion will be within +/-		40.5%	25.6%	18.0%	14.7%	12.7%	11.3%	10.3%	9.5%	8.8%	7.9%	7.1%	6.1%	5.4%	4.8%	4.4%	4.1%	3.8%	3.5%	3.0%	2.6%	2.3%	2.0%	1.8%	1.6%	1.4%	1.2%
Percentage being tested	Sample size	50% 10	50% 25	50% 50	50% 75	50% 100	50% 125	50% 150	50% 175	50% 200	50% 250	50% 300	50% 400	50% 500	50% 600	50% 700	50% 800	50% 900	50% 1000	50% 1250	50% 1500	50% 1750	50% 2000	50% 2250	50% 2500	50% 2750	50% 3000
90% confidence: true proportion will be within +/-		25.9%	16.3%	11.5%	9.4%	8.1%	7.2%	6.6%	6.1%	5.7%	5.0%	4.6%	3.9%	3.4%	3.1%	2.8%	2.6%	2.4%	2.2%	1.9%	1.7%	1.5%	1.3%	1.1%	1.0%	0.9%	0.7%
95% confidence: true proportion will be within +/-		31.0%	19.5%	13.8%	11.2%	9.7%	8.6%	7.9%	7.2%	6.8%	6.0%	5.4%	4.6%	4.1%	3.7%	3.4%	3.1%	2.9%	2.7%	2.3%	2.0%	1.8%	1.5%	1.4%	1.2%	1.0%	0.9%
99% confidence: true proportion will be within +/-		40.7%	25.7%	18.1%	14.8%	12.7%	11.4%	10.3%	9.5%	8.9%	7.9%	7.2%	6.1%	5.4%	4.9%	4.4%	4.1%	3.8%	3.5%	3.0%	2.6%	2.3%	2.0%	1.8%	1.6%	1.4%	1.2%

Testing one percentage for "expected variance"

Percentage being tested	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%
Sample size	10	25	50	75	100	125	150	175	200	250	300	400	500	600	700	800	900	1000	1250	1500	1750	2000	2250	2500	2750	3000
90% confidence: true proportion will be within +/-	25.8%	16.3%	11.5%	9.3%	8.1%	7.2%	6.5%	6.0%	5.6%	5.0%	4.5%	3.9%	3.4%	3.1%	2.8%	2.6%	2.4%	2.2%	1.9%	1.7%	1.5%	1.3%	1.1%	1.0%	0.9%	0.7%
95% confidence: true proportion will be within +/-	30.8%	19.4%	13.7%	11.2%	9.6%	8.6%	7.8%	7.2%	6.7%	6.0%	5.4%	4.6%	4.1%	3.7%	3.3%	3.1%	2.9%	2.7%	2.3%	2.0%	1.7%	1.5%	1.4%	1.2%	1.0%	0.9%
99% confidence: true proportion will be within +/-	40.5%	25.6%	18.0%	14.7%	12.7%	11.3%	10.3%	9.5%	8.8%	7.9%	7.1%	6.1%	5.4%	4.8%	4.4%	4.1%	3.8%	3.5%	3.0%	2.6%	2.3%	2.0%	1.8%	1.6%	1.4%	1.2%
Percentage being tested	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%
Sample size	10	25	50	75	100	125	150	175	200	250	300	400	500	600	700	800	900	1000	1250	1500	1750	2000	2250	2500	2750	3000
90% confidence: true proportion will be within +/-	25.4%	16.0%	11.3%	9.2%	7.9%	7.1%	6.4%	5.9%	5.5%	4.9%	4.5%	3.8%	3.4%	3.0%	2.8%	2.5%	2.4%	2.2%	1.9%	1.6%	1.4%	1.3%	1.1%	1.0%	0.9%	0.7%
95% confidence: true proportion will be within +/-	30.3%	19.1%	13.5%	11.0%	9.5%	8.5%	7.7%	7.1%	6.6%	5.9%	5.3%	4.6%	4.0%	3.6%	3.3%	3.0%	2.8%	2.6%	2.3%	2.0%	1.7%	1.5%	1.3%	1.2%	1.0%	0.9%
99% confidence: true proportion will be within +/-	39.9%	25.2%	17.8%	14.5%	12.5%	11.1%	10.1%	9.3%	8.7%	7.7%	7.0%	6.0%	5.3%	4.8%	4.3%	4.0%	3.7%	3.5%	3.0%	2.6%	2.3%	2.0%	1.8%	1.5%	1.3%	1.2%
Percentage being tested	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%
Sample size	10	25	50	75	100	125	150	175	200	250	300	400	500	600	700	800	900	1000	1250	1500	1750	2000	2250	2500	2750	3000
90% confidence: true proportion will be within +/-	24.7%	15.6%	11.0%	8.9%	7.7%	6.9%	6.3%	5.8%	5.4%	4.8%	4.3%	3.7%	3.3%	2.9%	2.7%	2.5%	2.3%	2.1%	1.8%	1.6%	1.4%	1.2%	1.1%	1.0%	0.8%	0.7%
95% confidence: true proportion will be within +/-	29.5%	18.6%	13.1%	10.7%	9.2%	8.2%	7.5%	6.9%	6.4%	5.7%	5.2%	4.4%	3.9%	3.5%	3.2%	3.0%	2.7%	2.6%	2.2%	1.9%	1.7%	1.5%	1.3%	1.1%	1.0%	0.9%
99% confidence: true proportion will be within +/-	38.9%	24.5%	17.3%	14.1%	12.2%	10.8%	9.9%	9.1%	8.5%	7.5%	6.8%	5.8%	5.1%	4.6%	4.2%	3.9%	3.6%	3.4%	2.9%	2.5%	2.2%	1.9%	1.7%	1.5%	1.3%	1.1%
Percentage being tested	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%
Sample size	10	25	50	75	100	125	150	175	200	250	300	400	500	600	700	800	900	1000	1250	1500	1750	2000	2250	2500	2750	3000
90% confidence: true proportion will be within +/-	23.7%	15.0%	10.6%	8.6%	7.4%	6.6%	6.0%	5.6%	5.2%	4.6%	4.2%	3.6%	3.1%	2.8%	2.6%	2.4%	2.2%	2.1%	1.8%	1.5%	1.3%	1.2%	1.0%	0.9%	0.8%	0.7%
95% confidence: true proportion will be within +/-	28.4%	17.9%	12.6%	10.3%	8.9%	7.9%	7.2%	6.6%	6.2%	5.5%	5.0%	4.3%	3.8%	3.4%	3.1%	2.8%	2.6%	2.5%	2.1%	1.8%	1.6%	1.4%	1.3%	1.1%	1.0%	0.8%
99% confidence: true proportion will be within +/-	37.3%	23.6%	16.6%	13.5%	11.7%	10.4%	9.5%	8.7%	8.1%	7.2%	6.6%	5.6%	4.9%	4.5%	4.1%	3.7%	3.5%	3.2%	2.8%	2.4%	2.1%	1.9%	1.6%	1.4%	1.3%	1.1%
Percentage being tested	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
Sample size	10	25	50	75	100	125	150	175	200	250	300	400	500	600	700	800	900	1000	1250	1500	1750	2000	2250	2500	2750	3000
90% confidence: true proportion will be within +/-	22.4%	14.2%	10.0%	8.1%	7.0%	6.3%	5.7%	5.2%	4.9%	4.3%	3.9%	3.4%	3.0%	2.7%	2.4%	2.2%	2.1%	1.9%	1.7%	1.4%	1.3%	1.1%	1.0%	0.9%	0.8%	0.6%
95% confidence: true proportion will be within +/-	26.8%	16.9%	11.9%	9.7%	8.4%	7.5%	6.8%	6.3%	5.8%	5.2%	4.7%	4.0%	3.6%	3.2%	2.9%	2.7%	2.5%	2.3%	2.0%	1.7%	1.5%	1.3%	1.2%	1.0%	0.9%	0.8%
99% confidence: true proportion will be within +/-	35.3%	22.3%	15.7%	12.8%	11.0%	9.8%	8.9%	8.3%	7.7%	6.8%	6.2%	5.3%	4.7%	4.2%	3.8%	3.5%	3.3%	3.1%	2.6%	2.3%	2.0%	1.8%	1.6%	1.4%	1.2%	1.0%
Percentage being tested	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%
Sample size	10	25	50	75	100	125	150	175	200	250	300	400	500	600	700	800	900	1000	1250	1500	1750	2000	2250	2500	2750	3000
90% confidence: true proportion will be within +/-	20.7%	13.1%	9.2%	7.5%	6.5%	5.8%	5.3%	4.8%	4.5%	4.0%	3.6%	3.1%	2.7%	2.5%	2.3%	2.1%	1.9%	1.8%	1.5%	1.3%	1.2%	1.0%	0.9%	0.8%	0.7%	0.6%
95% confidence: true proportion will be within +/-	24.8%	15.6%	11.0%	9.0%	7.7%	6.9%	6.3%	5.8%	5.4%	4.8%	4.4%	3.7%	3.3%	3.0%	2.7%	2.5%	2.3%	2.1%	1.8%	1.6%	1.4%	1.2%	1.1%	1.0%	0.8%	0.7%
99% confidence: true proportion will be within +/-	32.6%	20.6%	14.5%	11.8%	10.2%	9.1%	8.3%	7.6%	7.1%	6.3%	5.7%	4.9%	4.3%	3.9%	3.5%	3.3%	3.0%	2.8%	2.4%	2.1%	1.9%	1.6%	1.4%	1.3%	1.1%	0.9%
Percentage being tested	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%
Sample size	10	25	50	75	100	125	150	175	200	250	300	400	500	600	700	800	900	1000	1250	1500	1750	2000	2250	2500	2750	3000
90% confidence: true proportion will be within +/-	18.5%	11.7%	8.2%	6.7%	5.8%	5.2%	4.7%	4.3%	4.0%	3.6%	3.3%	2.8%	2.4%	2.2%	2.0%	1.9%	1.7%	1.6%	1.4%	1.2%	1.0%	0.9%	0.8%	0.7%	0.6%	0.5%
95% confidence: true proportion will be within +/-	22.1%	14.0%	9.8%	8.0%	6.9%	6.2%	5.6%	5.2%	4.8%	4.3%	3.9%	3.3%	2.9%	2.6%	2.4%	2.2%	2.1%	1.9%	1.6%	1.4%	1.3%	1.1%	1.0%	0.9%	0.7%	0.6%
99% confidence: true proportion will be within +/-	29.1%	18.4%	12.9%	10.5%	9.1%	8.1%	7.4%	6.8%	6.3%	5.6%	5.1%	4.4%	3.9%	3.5%	3.2%	2.9%	2.7%	2.5%	2.2%	1.9%	1.7%	1.5%	1.3%	1.1%	1.0%	0.8%
Percentage being tested	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
Sample size	10	25	50	75	100	125	150	175	200	250	300	400	500	600	700	800	900	1000	1250	1500	1750	2000	2250	2500	2750	3000
90% confidence: true proportion will be within +/-	15.5%	9.8%	6.9%	5.6%	4.9%	4.3%	3.9%	3.6%	3.4%	3.0%	2.7%	2.3%	2.1%	1.9%	1.7%	1.6%	1.4%	1.3%	1.2%	1.0%	0.9%	0.8%	0.7%	0.6%	0.5%	0.4%
95% confidence: true proportion will be within +/-	18.6%	11.7%	8.3%	6.7%	5.8%	5.2%	4.7%	4.3%	4.1%	3.6%	3.3%	2.8%	2.5%	2.2%	2.0%	1.9%	1.7%	1.6%	1.4%	1.2%	1.1%	0.9%	0.8%	0.7%	0.6%	0.5%
99% confidence: true proportion will be within +/-	24.4%	15.4%	10.9%	8.9%	7.6%	6.8%	6.2%	5.7%	5.3%	4.7%	4.3%	3.7%	3.2%	2.9%	2.7%	2.4%	2.3%	2.1%	1.8%	1.6%	1.4%	1.2%	1.1%	0.9%	0.8%	0.7%
Percentage being tested	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%
Sample size	10	25	50	75	100	125	150	175	200	250	300	400	500	600	700	800	900	1000	1250	1500	1750	2000	2250	2500	2750	3000
90% confidence: true proportion will be within +/-	11.3%	7.1%	5.0%	4.1%	3.5%	3.1%	2.9%	2.6%	2.5%	2.2%	2.0%	1.7%	1.5%	1.3%	1.2%	1.1%	1.0%	1.0%	0.8%	0.7%	0.6%	0.6%	0.5%	0.4%	0.4%	0.3%
95% confidence: true proportion will be within +/-	13.5%	8.5%	6.0%	4.9%	4.2%	3.8%	3.4%	3.2%	2.9%	2.6%	2.4%	2.0%	1.8%	1.6%	1.5%	1.4%	1.3%	1.2%	1.0%	0.9%	0.8%	0.7%	0.6%	0.5%	0.5%	0.4%
99% confidence: true proportion will be within +/-	17.8%	11.2%	7.9%	6.4%	5.6%	5.0%	4.5%	4.2%	3.9%	3.4%	3.1%	2.7%	2.4%	2.1%	1.9%	1.8%	1.7%	1.5%	1.3%	1.1%	1.0%	0.9%	0.8%	0.7%	0.6%	0.5%

Testing whether two percentages are significantly different

Testing whether two percentages are significantly different																											
Average of the 2 percentages to be tested	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	
Sample size	10	25	50	75	100	125	150	175	200	250	300	400	500	600	700	800	900	1000	1250	1500	1750	2000	2250	2500	2750	3000	
90% confidence: if difference between %s is more than	16.0%	10.1%	7.1%	5.8%	5.1%	4.5%	4.1%	3.8%	3.6%	3.2%	2.9%	2.5%	2.3%	2.1%	1.9%	1.8%	1.7%	1.6%	1.4%	1.3%	1.2%	1.1%	1.1%	1.0%	1.0%	0.9%	
95% confidence: if difference between %s is more than	19.1%	12.1%	8.5%	7.0%	6.0%	5.4%	4.9%	4.6%	4.3%	3.8%	3.5%	3.0%	2.7%	2.5%	2.3%	2.1%	2.0%	1.9%	1.7%	1.6%	1.4%	1.4%	1.3%	1.2%	1.2%	1.1%	
99% confidence: if difference between %s is more than	25.1%	15.9%	11.2%	9.2%	8.0%	7.1%	6.5%	6.0%	5.6%	5.0%	4.6%	4.0%	3.6%	3.2%	3.0%	2.8%	2.7%	2.5%	2.2%	2.1%	1.9%	1.8%	1.7%	1.6%	1.5%	1.5%	
Average of the 2 percentages to be tested	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	
Sample size	10	25	50	75	100	125	150	175	200	250	300	400	500	600	700	800	900	1000	1250	1500	1750	2000	2250	2500	2750	3000	
90% confidence: if difference between %s is more than	22.0%	13.9%	9.8%	8.0%	7.0%	6.2%	5.7%	5.3%	4.9%	4.4%	4.0%	3.5%	3.1%	2.8%	2.6%	2.5%	2.3%	2.2%	2.0%	1.8%	1.7%	1.6%	1.5%	1.4%	1.3%	1.3%	
95% confidence: if difference between %s is more than	26.3%	16.6%	11.8%	9.6%	8.3%	7.4%	6.8%	6.3%	5.9%	5.3%	4.8%	4.2%	3.7%	3.4%	3.1%	2.9%	2.8%	2.6%	2.4%	2.1%	2.0%	1.9%	1.8%	1.7%	1.6%	1.5%	
99% confidence: if difference between %s is more than	34.6%	21.9%	15.5%	12.6%	10.9%	9.8%	8.9%	8.3%	7.7%	6.9%	6.3%	5.5%	4.9%	4.5%	4.1%	3.9%	3.6%	3.5%	3.1%	2.8%	2.6%	2.4%	2.3%	2.2%	2.1%	2.0%	
Average of the 2 percentages to be tested	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	
Sample size	10	25	50	75	100	125	150	175	200	250	300	400	500	600	700	800	900	1000	1250	1500	1750	2000	2250	2500	2750	3000	
90% confidence: if difference between %s is more than	26.2%	16.6%	11.7%	9.6%	8.3%	7.4%	6.8%	6.3%	5.9%	5.2%	4.8%	4.1%	3.7%	3.4%	3.1%	2.9%	2.8%	2.6%	2.3%	2.1%	2.0%	1.9%	1.7%	1.7%	1.6%	1.5%	
95% confidence: if difference between %s is more than	31.3%	19.8%	14.0%	11.4%	9.9%	8.9%	8.1%	7.5%	7.0%	6.3%	5.7%	4.9%	4.4%	4.0%	3.7%	3.5%	3.3%	3.1%	2.8%	2.6%	2.4%	2.2%	2.1%	2.0%	1.9%	1.8%	
99% confidence: if difference between %s is more than	41.2%	26.1%	18.4%	15.0%	13.0%	11.7%	10.6%	9.8%	9.2%	8.2%	7.5%	6.5%	5.8%	5.3%	4.9%	4.6%	4.3%	4.1%	3.7%	3.4%	3.1%	2.9%	2.7%	2.6%	2.5%	2.4%	
Average of the 2 percentages to be tested	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	
Sample size	10	25	50	75	100	125	150	175	200	250	300	400	500	600	700	800	900	1000	1250	1500	1750	2000	2250	2500	2750	3000	
90% confidence: if difference between %s is more than	29.3%	18.6%	13.1%	10.7%	9.3%	8.3%	7.6%	7.0%	6.6%	5.9%	5.4%	4.6%	4.1%	3.8%	3.5%	3.3%	3.1%	2.9%	2.6%	2.4%	2.2%	2.1%	2.0%	1.9%	1.8%	1.7%	
95% confidence: if difference between %s is more than	35.1%	22.2%	15.7%	12.8%	11.1%	9.9%	9.1%	8.4%	7.8%	7.0%	6.4%	5.5%	5.0%	4.5%	4.2%	3.9%	3.7%	3.5%	3.1%	2.9%	2.7%	2.5%	2.3%	2.2%	2.1%	2.0%	
99% confidence: if difference between %s is more than	46.2%	29.2%	20.6%	16.9%	14.6%	13.1%	11.9%	11.0%	10.3%	9.2%	8.4%	7.3%	6.5%	6.0%	5.5%	5.2%	4.9%	4.6%	4.1%	3.8%	3.5%	3.3%	3.1%	2.9%	2.8%	2.7%	
Average of the 2 percentages to be tested	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	
Sample size	10	25	50	75	100	125	150	175	200	250	300	400	500	600	700	800	900	1000	1250	1500	1750	2000	2250	2500	2750	3000	
90% confidence: if difference between %s is more than	31.8%	20.1%	14.2%	11.6%	10.0%	9.0%	8.2%	7.6%	7.1%	6.4%	5.8%	5.0%	4.5%	4.1%	3.8%	3.6%	3.3%	3.2%	2.8%	2.6%	2.4%	2.2%	2.1%	2.0%	1.9%	1.8%	
95% confidence: if difference between %s is more than	38.0%	24.0%	17.0%	13.9%	12.0%	10.7%	9.8%	9.1%	8.5%	7.6%	6.9%	6.0%	5.4%	4.9%	4.5%	4.2%	4.0%	3.8%	3.4%	3.1%	2.9%	2.7%	2.5%	2.4%	2.3%	2.2%	
99% confidence: if difference between %s is more than	50.0%	31.6%	22.3%	18.2%	15.8%	14.1%	12.9%	11.9%	11.2%	10.0%	9.1%	7.9%	7.1%	6.5%	6.0%	5.6%	5.3%	5.0%	4.5%	4.1%	3.8%	3.5%	3.3%	3.2%	3.0%	2.9%	
Average of the 2 percentages to be tested	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	
Sample size	10	25	50	75	100	125	150	175	200	250	300	400	500	600	700	800	900	1000	1250	1500	1750	2000	2250	2500	2750	3000	
90% confidence: if difference between %s is more than	33.6%	21.3%	15.0%	12.3%	10.6%	9.5%	8.7%	8.0%	7.5%	6.7%	6.1%	5.3%	4.8%	4.3%	4.0%	3.8%	3.5%	3.4%	3.0%	2.7%	2.5%	2.4%	2.2%	2.1%	2.0%	1.9%	
95% confidence: if difference between %s is more than	40.2%	25.4%	18.0%	14.7%	12.7%	11.4%	10.4%	9.6%	9.0%	8.0%	7.3%	6.4%	5.7%	5.2%	4.8%	4.5%	4.2%	4.0%	3.6%	3.3%	3.0%	2.8%	2.7%	2.5%	2.4%	2.3%	
99% confidence: if difference between %s is more than	52.9%	33.4%	23.6%	19.3%	16.7%	15.0%	13.7%	12.6%	11.8%	10.6%	9.7%	8.4%	7.5%	6.8%	6.3%	5.9%	5.6%	5.3%	4.7%	4.3%	4.0%	3.7%	3.5%	3.3%	3.2%	3.1%	
Average of the 2 percentages to be tested	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	
Sample size	10	25	50	75	100	125	150	175	200	250	300	400	500	600	700	800	900	1000	1250	1500	1750	2000	2250				

Testing whether two percentages are significantly different																											
Average of the 2 percentages to be tested Sample size	55% 10	55% 25	55% 50	55% 75	55% 100	55% 125	55% 150	55% 175	55% 200	55% 250	55% 300	55% 400	55% 500	55% 600	55% 700	55% 800	55% 900	55% 1000	55% 1250	55% 1500	55% 1750	55% 2000	55% 2250	55% 2500	55% 2750	55% 3000	
90% confidence: if difference between %s is more than	36.5%	23.1%	16.3%	13.3%	11.5%	10.3%	9.4%	8.7%	8.2%	7.3%	6.7%	5.8%	5.2%	4.7%	4.4%	4.1%	3.8%	3.6%	3.3%	3.0%	2.8%	2.6%	2.4%	2.3%	2.2%	2.1%	
95% confidence: if difference between %s is more than	43.6%	27.6%	19.5%	15.9%	13.8%	12.3%	11.3%	10.4%	9.8%	8.7%	8.0%	6.9%	6.2%	5.6%	5.2%	4.9%	4.6%	4.4%	3.9%	3.6%	3.3%	3.1%	2.9%	2.8%	2.6%	2.5%	
99% confidence: if difference between %s is more than	57.4%	36.3%	25.7%	21.0%	18.2%	16.2%	14.8%	13.7%	12.8%	11.5%	10.5%	9.1%	8.1%	7.4%	6.9%	6.4%	6.1%	5.7%	5.1%	4.7%	4.3%	4.1%	3.8%	3.6%	3.5%	3.3%	
Average of the 2 percentages to be tested Sample size	60% 10	60% 25	60% 50	60% 75	60% 100	60% 125	60% 150	60% 175	60% 200	60% 250	60% 300	60% 400	60% 500	60% 600	60% 700	60% 800	60% 900	60% 1000	60% 1250	60% 1500	60% 1750	60% 2000	60% 2250	60% 2500	60% 2750	60% 3000	
90% confidence: if difference between %s is more than	35.9%	22.7%	16.1%	13.1%	11.4%	10.2%	9.3%	8.6%	8.0%	7.2%	6.6%	5.7%	5.1%	4.6%	4.3%	4.0%	3.8%	3.6%	3.2%	2.9%	2.7%	2.5%	2.4%	2.3%	2.2%	2.1%	
95% confidence: if difference between %s is more than	42.9%	27.2%	19.2%	15.7%	13.6%	12.1%	11.1%	10.3%	9.6%	8.6%	7.8%	6.8%	6.1%	5.5%	5.1%	4.8%	4.5%	4.3%	3.8%	3.5%	3.2%	3.0%	2.9%	2.7%	2.6%	2.5%	
99% confidence: if difference between %s is more than	56.5%	35.7%	25.3%	20.6%	17.9%	16.0%	14.6%	13.5%	12.6%	11.3%	10.3%	8.9%	8.0%	7.3%	6.8%	6.3%	6.0%	5.7%	5.1%	4.6%	4.3%	4.0%	3.8%	3.6%	3.4%	3.3%	
Average of the 2 percentages to be tested Sample size	65% 10	65% 25	65% 50	65% 75	65% 100	65% 125	65% 150	65% 175	65% 200	65% 250	65% 300	65% 400	65% 500	65% 600	65% 700	65% 800	65% 900	65% 1000	65% 1250	65% 1500	65% 1750	65% 2000	65% 2250	65% 2500	65% 2750	65% 3000	
90% confidence: if difference between %s is more than	35.0%	22.1%	15.6%	12.8%	11.1%	9.9%	9.0%	8.4%	7.8%	7.0%	6.4%	5.5%	4.9%	4.5%	4.2%	3.9%	3.7%	3.5%	3.1%	2.9%	2.6%	2.5%	2.3%	2.2%	2.1%	2.0%	
95% confidence: if difference between %s is more than	41.8%	26.4%	18.7%	15.3%	13.2%	11.8%	10.8%	10.0%	9.3%	8.4%	7.6%	6.6%	5.9%	5.4%	5.0%	4.7%	4.4%	4.2%	3.7%	3.4%	3.2%	3.0%	2.8%	2.6%	2.5%	2.4%	
99% confidence: if difference between %s is more than	55.0%	34.8%	24.6%	20.1%	17.4%	15.6%	14.2%	13.2%	12.3%	11.0%	10.0%	8.7%	7.8%	7.1%	6.6%	6.2%	5.8%	5.5%	4.9%	4.5%	4.2%	3.9%	3.7%	3.5%	3.3%	3.2%	
Average of the 2 percentages to be tested Sample size	70% 10	70% 25	70% 50	70% 75	70% 100	70% 125	70% 150	70% 175	70% 200	70% 250	70% 300	70% 400	70% 500	70% 600	70% 700	70% 800	70% 900	70% 1000	70% 1250	70% 1500	70% 1750	70% 2000	70% 2250	70% 2500	70% 2750	70% 3000	
90% confidence: if difference between %s is more than	33.6%	21.3%	15.0%	12.3%	10.6%	9.5%	8.7%	8.0%	7.5%	6.7%	6.1%	5.3%	4.8%	4.3%	4.0%	3.8%	3.5%	3.4%	3.0%	2.7%	2.5%	2.4%	2.2%	2.1%	2.0%	1.9%	
95% confidence: if difference between %s is more than	40.2%	25.4%	18.0%	14.7%	12.7%	11.4%	10.4%	9.6%	9.0%	8.0%	7.3%	6.4%	5.7%	5.2%	4.8%	4.5%	4.2%	4.0%	3.6%	3.3%	3.0%	2.8%	2.7%	2.5%	2.4%	2.3%	
99% confidence: if difference between %s is more than	52.9%	33.4%	23.6%	19.3%	16.7%	15.0%	13.7%	12.6%	11.8%	10.6%	9.7%	8.4%	7.5%	6.8%	6.3%	5.9%	5.6%	5.3%	4.7%	4.3%	4.0%	3.7%	3.5%	3.3%	3.2%	3.1%	
Average of the 2 percentages to be tested Sample size	75% 10	75% 25	75% 50	75% 75	75% 100	75% 125	75% 150	75% 175	75% 200	75% 250	75% 300	75% 400	75% 500	75% 600	75% 700	75% 800	75% 900	75% 1000	75% 1250	75% 1500	75% 1750	75% 2000	75% 2250	75% 2500	75% 2750	75% 3000	
90% confidence: if difference between %s is more than	31.8%	20.1%	14.2%	11.6%	10.0%	9.0%	8.2%	7.6%	7.1%	6.4%	5.8%	5.0%	4.5%	4.1%	3.8%	3.6%	3.3%	3.2%	2.8%	2.6%	2.4%	2.2%	2.1%	2.0%	1.9%	1.8%	
95% confidence: if difference between %s is more than	38.0%	24.0%	17.0%	13.9%	12.0%	10.7%	9.8%	9.1%	8.5%	7.6%	6.9%	6.0%	5.4%	4.9%	4.5%	4.2%	4.0%	3.8%	3.4%	3.1%	2.9%	2.7%	2.5%	2.4%	2.3%	2.2%	
99% confidence: if difference between %s is more than	50.0%	31.6%	22.3%	18.2%	15.8%	14.1%	12.9%	11.9%	11.2%	10.0%	9.1%	7.9%	7.1%	6.5%	6.0%	5.6%	5.3%	5.0%	4.5%	4.1%	3.8%	3.5%	3.3%	3.2%	3.0%	2.9%	
Average of the 2 percentages to be tested Sample size	80% 10	80% 25	80% 50	80% 75	80% 100	80% 125	80% 150	80% 175	80% 200	80% 250	80% 300	80% 400	80% 500	80% 600	80% 700	80% 800	80% 900	80% 1000	80% 1250	80% 1500	80% 1750	80% 2000	80% 2250	80% 2500	80% 2750	80% 3000	
90% confidence: if difference between %s is more than	29.3%	18.6%	13.1%	10.7%	9.3%	8.3%	7.6%	7.0%	6.6%	5.9%	5.4%	4.6%	4.1%	3.8%	3.5%	3.3%	3.1%	2.9%	2.6%	2.4%	2.2%	2.1%	2.0%	1.9%	1.8%	1.7%	
95% confidence: if difference between %s is more than	35.1%	22.2%	15.7%	12.8%	11.1%	9.9%	9.1%	8.4%	7.8%	7.0%	6.4%	5.5%	5.0%	4.5%	4.2%	3.9%	3.7%	3.5%	3.1%	2.9%	2.7%	2.5%	2.3%	2.2%	2.1%	2.0%	
99% confidence: if difference between %s is more than	46.2%	29.2%	20.6%	16.9%	14.6%	13.1%	11.9%	11.0%	10.3%	9.2%	8.4%	7.3%	6.5%	6.0%	5.5%	5.2%	4.9%	4.6%	4.1%	3.8%	3.5%	3.3%	3.1%	2.9%	2.8%	2.7%	
Average of the 2 percentages to be tested Sample size	85% 10	85% 25	85% 50	85% 75	85% 100	85% 125	85% 150	85% 175	85% 200	85% 250	85% 300	85% 400	85% 500	85% 600	85% 700	85% 800	85% 900	85% 1000	85% 1250	85% 1500	85% 1750	85% 2000	85% 2250	85% 2500	85% 2750	85% 3000	
90% confidence: if difference between %s is more than	26.2%	16.6%	11.7%	9.6%	8.3%	7.4%	6.8%	6.3%	5.9%	5.2%	4.8%	4.1%	3.7%	3.4%	3.1%	2.9%	2.8%	2.6%	2.3%	2.1%	2.0%	1.9%	1.7%	1.7%	1.6%	1.5%	
95% confidence: if difference between %s is more than	31.3%	19.8%	14.0%	11.4%	9.9%	8.9%	8.1%	7.5%	7.0%	6.3%	5.7%	4.9%	4.4%	4.0%	3.7%	3.5%	3.3%	3.1%	2.8%	2.6%	2.4%	2.2%	2.1%	2.0%	1.9%	1.8%	
99% confidence: if difference between %s is more than	41.2%	26.1%	18.4%	15.0%	13.0%	11.7%	10.6%	9.8%	9.2%	8.2%	7.5%	6.5%	5.8%	5.3%	4.9%	4.6%	4.3%	4.1%	3.7%	3.4%	3.1%	2.9%	2.7%	2.6%	2.5%	2.4%	
Average of the 2 percentages to be tested Sample size	90% 10	90% 25	90% 50	90% 75	90% 100	90% 125	90% 150	90% 175	90% 200	90% 250	90% 300	90% 400	90% 500	90% 600	90% 700	90% 800	90% 900	90% 1000	90% 1250	90% 1500	90% 1750	90% 2000	90% 2250	90% 2500	90% 2750	90% 3000	
90% confidence: if difference between %s is more than	22.0%	13.9%	9.8%	8.0%	7.0%	6.2%	5.7%	5.3%	4.9%	4.4%	4.0%	3.5%	3.1%	2.8%	2.6%	2.5%	2.3%	2.2%	2.0%	1.8%	1.7%	1.6%	1.5%	1.4%	1.3%	1.3%	
95% confidence: if difference between %s is more than	26.3%	16.6%	11.8%	9.6%	8.3%	7.4%	6.8%	6.3%	5.9%	5.3%	4.8%	4.2%	3.7%	3.4%	3.1%	2.9%	2.8%	2.6%	2.4%	2.1%	2.0%	1.9%	1.8%	1.7%	1.6%	1.5%	
99% confidence: if difference between %s is more than	34.6%	21.9%	15.5%	12.6%	10.9%	9.8%	8.9%	8.3%	7.7%	6.9%	6.3%	5.5%	4.9%	4.5%	4.1%	3.9%	3.6%	3.5%	3.1%	2.8%	2.6%	2.4%	2.3%	2.2%	2.1%	2.0%	
Average of the 2 percentages to be tested Sample size	95% 10																										