

■ **FIGURE 7.5** Sample sizes for various populations of size 10 to 500 million

N stands for the size of the population. n stands for the size of the recommended sample. The sample sizes are based on the 95 percent confidence level.

N	n	N	n	N	n	N	n	N	n
10	10	110	86	300	169	950	274	4,500	354
15	14	120	92	320	175	1,000	278	5,000	357
20	19	130	97	340	181	1,100	285	6,000	361
25	24	140	103	360	186	1,200	291	7,000	364
30	28	150	108	380	191	1,300	297	8,000	367
35	32	160	113	400	196	1,400	302	9,000	368
40	36	170	118	420	201	1,500	306	10,000	370
45	40	180	123	440	205	1,600	310	15,000	375
50	44	190	127	460	210	1,700	313	20,000	377
55	48	200	132	480	214	1,800	317	30,000	379
60	52	210	136	500	217	1,900	320	40,000	380
65	56	220	140	550	226	2,000	322	50,000	381
70	59	230	144	600	234	2,200	327	75,000	382
75	63	240	148	650	242	2,400	331	100,000	384
80	66	250	152	700	248	2,600	335	250,000	384
85	70	260	155	750	254	2,800	338	500,000	384
90	73	270	159	800	260	3,000	341	1,000,000	384
95	76	280	162	850	265	3,500	346	10,000,000	384
100	80	290	165	900	269	4,000	351	500,000,000	384

Adapted from R. V. Krejcie and D. W. Morgan, "Determining Sample Size for Research Activities," *Educational and Psychological Measurement*, 30(3), p. 608, copyright © 1970 by Sage Publications, Inc. Reprinted by Permission of Sage Publications, Inc.