

**Necessary Sample Size**  
( $\alpha = .05$ , two-tailed test)

t test for One-Sample or Two Related Samples

1- $\beta$	Cohen's <i>d</i>													
	.20	.30	.40	.50	.60	.70	.80	.90	1.00	1.10	1.20	1.30	1.40	1.50
.50	99	46	27	18	14	11	9	8	7	6	6	5	5	5
.55	112	51	30	20	15	12	10	8	7	7	6	5	5	5
.60	125	57	33	22	16	13	10	9	8	7	6	6	5	5
.65	140	64	37	25	18	14	11	10	8	7	7	6	6	5
.70	157	71	41	27	20	15	12	10	9	8	7	6	6	5
.75	176	80	46	30	22	17	13	11	10	8	7	7	6	6
.80	199	90	52	34	24	19	15	12	10	9	8	7	7	6
.85	227	102	59	38	27	21	17	14	12	10	9	8	7	7
.90	265	119	68	45	32	24	19	16	13	11	10	9	8	7

t test for Two Independent Samples<sup>1</sup>

1- $\beta$	Cohen's <i>d</i>													
	.20	.30	.40	.50	.60	.70	.80	.90	1.00	1.10	1.20	1.30	1.40	1.50
.50	194	87	50	32	23	17	14	11	9	8	7	6	6	5
.55	219	98	56	36	26	19	15	12	10	9	8	7	6	6
.60	247	110	63	41	29	22	17	14	11	10	9	8	7	6
.65	277	124	70	46	32	24	19	15	13	11	9	8	7	7
.70	310	139	79	51	36	27	21	17	14	12	10	9	8	7
.75	349	156	88	57	40	30	23	19	15	13	11	10	9	8
.80	394	176	100	64	45	34	26	21	17	15	12	11	10	9
.85	450	201	114	73	51	38	30	24	19	16	14	12	11	10
.90	527	235	133	86	60	44	34	27	23	19	16	14	12	11

Correlation

1- $\beta$	<i>r</i>														
	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80
.50	385	172	97	63	44	32	25	20	16	14	12	10	9	8	7
.55	435	194	109	70	49	36	28	22	18	15	12	11	9	8	7
.60	490	218	122	78	54	40	30	24	19	16	13	11	10	8	7
.65	549	244	137	87	60	44	33	26	21	17	14	12	10	9	7
.70	616	273	153	97	67	49	37	29	23	19	15	13	11	9	8
.75	692	306	171	109	75	54	41	32	25	20	17	14	12	10	8
.80	781	345	193	122	84	61	46	35	28	23	18	15	13	10	9
.85	893	395	220	139	95	69	52	40	31	25	20	17	14	11	9
.90	1045	461	257	162	111	80	60	46	36	29	23	19	15	13	10

<sup>1</sup> Values represent required sample size for each sample.