Appendix F: Student's *t* Distribution Table

How to Use the Student's *t* Distribution Table

First, determine whether a one-tailed or a two-tailed test is appropriate—that is, whether you will be using the column headings in the first or the second row of the table. Next, select the level of significance for your test from the level of significance row you have selected; the column of the table you will be using has now been determined. Finally, calculate *df* for your data and locate its value (or nearest value) in the left-hand column, thereby determining the row of the critical values in the table you will be using. The quantity in the cell of the table at the intersection of the row and the column you have identified is the critical value of *t* for your test. If you have calculated a *t* whose value is equal to or larger than the quantity in this cell, the difference between means is statistically significant at the level you have chosen.

Table F.1 Student's *t* Distribution

	Level of Significance for One-Tailed Test					
	.10	***.05***	***.025***	***.01***	***.005***	***.0005***
df	*Level of Significance for Two-Tailed Test*					
	.20	***.10***	***.05***	***.02***	***.01***	***.001***
1	3.078	6.314	12.706	31.821	63.657	636.619
2	1.886	2.920	4.303	6.965	9.925	31.598
3	1.638	2.353	3.182	4.541	5.841	12.941
4	1.533	2.132	2.776	3.747	4.604	8.610
5	1.476	2.015	2.571	3.365	4.032	6.859
6	1.440	1.943	2.447	3.143	3.707	5.959

(Continued)

Table F.1 Student's *t* Distribution (Continued)

	Level of Significance for One-Tailed Test					
	.10	***.05***	***.025***	***.01***	***.005***	***.0005***
df	*Level of Significance for Two-Tailed Test*					
	.20	***.10***	***.05***	***.02***	***.01***	***.001***
7	1.415	1.895	2.365	2.998	3.499	5.405
8	1.397	1.860	2.306	2.896	3.355	5.041
9	1.383	1.833	2.262	2.821	3.250	4.781
10	1.372	1.812	2.228	2.764	3.169	4.587
11	1.363	1.796	2.201	2.718	3.106	4.437
12	1.356	1.782	2.179	2.681	3.055	4.318
13	1.350	1.771	2.160	2.650	3.012	4.221
14	1.345	1.761	2.145	2.624	2.977	4.140
15	1.341	1.753	2.131	2.602	2.947	4.073
16	1.337	1.746	2.120	2.583	2.921	4.015
17	1.333	1.740	2.110	2.567	2.898	3.965
18	1.330	1.734	2.101	2.552	2.878	3.922
19	1.328	1.729	2.093	2.539	2.861	3.883
20	1.325	1.725	2.086	2.528	2.845	3.850
21	1.323	1.721	2.080	2.518	2.831	3.819
22	1.321	1.717	2.074	2.508	2.819	3.792
23	1.319	1.714	2.069	2.500	2.807	3.767
24	1.318	1.711	2.064	2.492	2.797	3.745
25	1.316	1.708	2.060	2.485	2.787	3.725
26	1.315	1.706	2.056	2.479	2.779	3.707
27	1.314	1.703	2.052	2.473	2.771	3.690
28	1.313	1.701	2.048	2.467	2.763	3.674
29	1.311	1.699	2.045	2.462	2.756	3.659
30	1.310	1.697	2.042	2.457	2.750	3.646
40	1.303	1.684	2.021	2.423	2.704	3.551
60	1.296	1.671	2.000	2.390	2.660	3.460
120	1.289	1.658	1.980	2.358	2.617	3.373
∞	1.282	1.645	1.960	2.326	2.576	3.291

Source: Adapted from Table III of R. A. Fisher and F. Yates. *Statistical Tables for Biological, Agricultural and Medical Research,* 1948 edition. Reprinted by permission of Addison Wesley Longman Ltd.