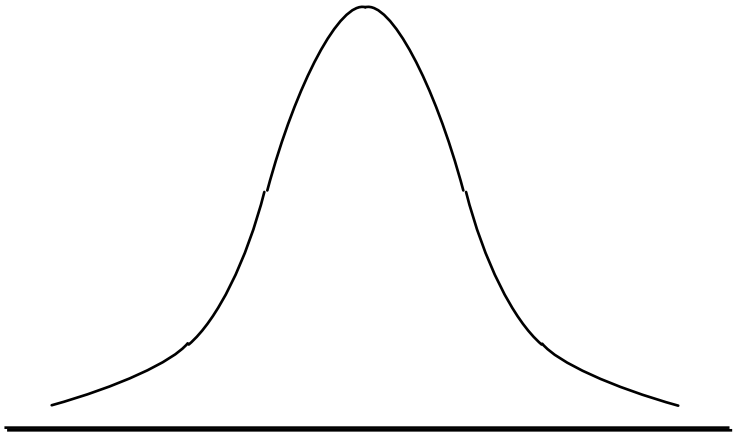
Discount Sounds has 260 retail outlets throughout the United States. The firm is evaluating a potential location for a new outlet, based in part, on the mean annual income of the individuals in the marketing area of the new location. A sample of size n = 36 was taken; the sample mean income is $41,100. The population is not believed to be highly skewed. The population standard deviation is estimated to be $4,500, and the confidence coefficient is 0.95.



Using Excel:

Calculating $\alpha/2$ = NORM.S.INV

Calculating MOE: CONFIDENCE.NORM

z	.00	.01	.02	.03	.04	.05	.06
−3.4	.0003	.0003	.0003	.0003	.0003	.0003	.0003
−3.3	.0005	.0005	.0005	.0004	.0004	.0004	.0004
−3.2	.0007	.0007	.0006	.0006	.0006	.0006	.0006
−3.1	.0010	.0009	.0009	.0009	.0008	.0008	.0008
−3.0	.0013	.0013	.0013	.0012	.0012	.0011	.0011
−2.9	.0019	.0018	.0018	.0017	.0016	.0016	.0015
−2.8	.0026	.0025	.0024	.0023	.0023	.0022	.0021
−2.7	.0035	.0034	.0033	.0032	.0031	.0030	.0029
−2.6	.0047	.0045	.0044	.0043	.0041	.0040	.0039
−2.5	.0062	.0060	.0059	.0057	.0055	.0054	.0052
−2.4	.0082	.0080	.0078	.0075	.0073	.0071	.0069
−2.3	.0107	.0104	.0102	.0099	.0096	.0094	.0091
−2.2	.0139	.0136	.0132	.0129	.0125	.0122	.0119
−2.1	.0179	.0174	.0170	.0166	.0162	.0158	.0154
−2.0	.0228	.0222	.0217	.0212	.0207	.0202	.0197
−1.9	.0287	.0281	.0274	.0268	.0262	.0256	.0250