Hand Distributions Provided by Chuck Deal

Probability of Hand Distributions- The a priori probability of holding a certain hand pattern is based on mathematical odds. Aspiring bridge players make mental references the hand distribution when bidding or determining the best line of play, particularly the ***most probable*** hand distribution. Among the 39 possible hand patterns, 5 hand patterns comprise 70 percent of the possible hands based upon 100,000 deals and they follow a Normal Distribution. Manual deals DO NOT follow a Normal Distribution. The results follow.

Longest
Suit
Distribution
Pattern Computer Dealt %/(Manual Dealt %)
4-4-3-2 21.6/(22.1)
4-3-3-3 10.5/(10.8)
4-4-4-1 3.0/(3.0)
4
35.10/(26.90)
Newsletter 9
5-3-3-2 15.5/(15.7)
5-4-3-1 12.9/(12.8)
5-4-2-2 10.6/(10.5)
5-5-2-1 3.2/(3.1)
5-4-4-0 1.2/(1.2)
5-5-3-0 0.90/(0.88)
5
44.34/(42.98)
6-3-2-2 5.6/(5.6)
6-4-2-1 4.7/(4.6)
6-3-3-1 3.5/(3.4)
6-4-3-0 1.3/(1.3)
6-5-1-1 0.71/(0.65)
6-5-2-0 0.65/(0.60)
6
16.55/(16.15)
7-3-2-1 1.9/(1.8)
7-2-2-2 0.51/(0.48)
7-4-1-1 0.39/(0.38)
7-4-2-0 0.36/(0.33)
7-3-3-0 0.27/(0.24)
7-5-1-0 0.1/(0.98)
7
3.90/(4.21)
Others 0.50/(0.98)

A common remark made by bridge players is that computer dealt hands is more skewed than hands dealt manually. **THIS IS NOT TRUE.**

Based upon 100,000 deals, the computer dealt hands follow a Normal Distribution almost exactly where the probability of acceptance for a
"Normal" curve is 99.78%, using a Chi-square goodness-of-fit test. The corresponding probability of fit for manually dealt hands is <0.1%.

WOW!