Page A-5 Appendix A.3 Binomial Probability Distribution

Additional tables are available on Connect.

n = 1 Probability

 x
 0.05
 0.10
 0.20
 0.30
 0.40
 0.50
 0.60
 0.70
 0.80
 0.90
 0.95

 0
 0.9500.9000.8000.7000.6000.5000.4000.3000.2000.1000.050

 1
 0.0500.1000.2000.3000.4000.5000.6000.7000.8000.9000.950

n = 2 Probability

x 0.05 0.10 0.20 0.30 0.40 0.50 0.60 0.70 0.80 0.90 0.95

00.9030.8100.6400.4900.3600.2500.1600.0900.0400.0100.003 10.0950.1800.3200.4200.4800.5000.4800.4200.3200.1800.095

2|0.0030.0100.0400.0900.1600.2500.3600.4900.6400.8100.903

n = 3 Probability

 x
 0.05
 0.10
 0.20
 0.30
 0.40
 0.50
 0.60
 0.70
 0.80
 0.90
 0.95

 0
 0.8570.7290.5120.3430.2160.1250.0640.0270.0080.0010.000

 1
 0.1350.2430.3840.4410.4320.3750.2880.1890.0960.0270.007

 2
 0.070.0370.0370.0060.1800.2880.3750.4320.4410.3840.2430.135

20.0070.0270.0960.1890.2880.3750.4320.4410.3840.2430.135 30.0000.0010.0080.0270.0640.1250.2160.3430.5120.7290.857

n=4

Probability 2.50 0.50 0.50

 x
 0.05
 0.10
 0.20
 0.30
 0.40
 0.50
 0.60
 0.70
 0.80
 0.90
 0.95

 0
 0.8150.6560.4100.2400.1300.0630.0260.0080.0020.0000.000
 1
 0.1710.2920.4100.4120.3460.2500.1540.0760.0260.0040.000
 2
 0.0140.0490.1540.2650.3460.3750.3460.2650.1540.0490.014
 3
 0.0000.0040.0260.0760.1540.2500.3460.4120.4100.2920.171
 4
 0.0000.0000.0020.0080.0260.0630.1300.2400.4100.6560.815

n = 5

Probability

x 0.05 0.10 0.20 0.30 0.40 0.50 0.60 0.70 0.80 0.90 0.95

00.7740.5900.3280.1680.0780.0310.0100.0020.0000.0000.000

 $1 \\ 0.2040.3280.4100.3600.2590.1560.0770.0280.0060.0000.000$

20.0210.0730.2050.3090.3460.3130.2300.1320.0510.0080.001

3|0.0010.0080.0510.1320.2300.3130.3460.3090.2050.0730.021

40.0000.0000.0060.0280.0770.1560.2590.3600.4100.3280.204

50.0000.0000.0000.0020.0100.0310.0780.1680.3280.5900.774

n=6

Probability

x 0.05 0.10 0.20 0.30 0.40 0.50 0.60 0.70 0.80 0.90 0.95

n = 7 Probability

n = 8 Probability

 x
 0.05
 0.10
 0.20
 0.30
 0.40
 0.50
 0.60
 0.70
 0.80
 0.90
 0.95

 0
 0.6630.4300.1680.0580.0170.0040.0010.0000.0000.0000
 10.2790.3830.3360.1980.0900.0310.0080.0010.0000.0000.000
 20.0510.1490.2940.2960.2090.1090.0410.0100.0010.0000.000
 20.0510.1490.2940.2960.2090.1090.0410.0100.0010.0000.000
 30.0050.0330.1470.2540.2790.2190.1240.0470.0090.0000.000
 40.0000.0050.0460.1360.2320.2730.2320.1360.0460.0050.000
 50.0000.0000.0090.0470.1240.2190.2790.2540.1470.0330.005
 60.0000.0000.0000.0010.0100.0410.1090.2090.2960.2940.1490.051
 70.0000.0000.0000.0010.0080.0310.0900.1980.3360.3830.279
 80.0000.0000.0000.0000.0000.0010.0040.0170.0580.1680.4300.663

n = 9 Probability

n = 10 Probability

n = 11 Probability

n = 12 Probability

 $90.0000.0000.0000.0010.0120.0540.1420.2400.2360.0850.017 \\ 100.0000.0000.0000.0000.0020.0160.0640.1680.2830.2300.099 \\ 110.0000.0000.0000.0000.0000.0030.0170.0710.2060.3770.341 \\ 120.0000.0000.0000.0000.0000.0000.0020.0140.0690.2820.540$

n = 13 Probability

n = 14 Probability

0.05 0.10 0.20 0.30 0.40 0.50 0.60 0.70 0.80 0.90 0.95 20.1230.2570.2500.1130.0320.0060.0010.0000.0000.0000.000 3|0.0260.1140.2500.1940.0850.0220.0030.0000.0000.0000.000 40.0040.0350.1720.2290.1550.0610.0140.0010.0000.0000.000 5|0.0000.0080.0860.1960.2070.1220.0410.0070.0000.0000.000 60.0000.0010.0320.1260.2070.1830.0920.0230.0020.0000.000 70.0000.0000.0090.0620.1570.2090.1570.0620.0090.0000.000 8|0.0000.0000.0020.0230.0920.1830.2070.1260.0320.0010.000 90.0000.0000.0000.0070.0410.1220.2070.1960.0860.0080.000 10|0.0000.0000.0000.0010.0140.0610.1550.2290.1720.0350.004 11|0.0000.0000.0000.0000.0030.0220.0850.1940.2500.1140.026 12|0.0000.0000.0000.0000.0010.0060.0320.1130.2500.2570.123 13|0.0000.0000.0000.0000.0000.0010.0070.0410.1540.3560.359 14|0.0000.0000.0000.0000.0000.0000.0010.0070.0440.2290.488

n = 15 Probability

30.0310.1290.2500.1700.0630.0140.0020.0000.0000.0000.000 40.0050.0430.1880.2190.1270.0420.0070.0010.0000.0000.000 50.0010.0100.1030.2060.1860.0920.0240.0030.0000.0000.000 60.0000.0020.0430.1470.2070.1530.0610.0120.0010.0000.000 70.0000.0000.0140.0810.1770.1960.1180.0350.0030.0000.000 80.0000.0000.0030.0350.1180.1960.1770.0810.0140.0000.000 90.0000.0000.0010.0120.0610.1530.2070.1470.0430.0020.000 10|0.0000.0000.0000.0030.0240.0920.1860.2060.1030.0100.001 11|0.0000.0000.0000.0010.0070.0420.1270.2190.1880.0430.005 12|0.0000.0000.0000.0000.0020.0140.0630.1700.2500.1290.031 13|0.0000.0000.0000.0000.0000.0030.0220.0920.2310.2670.135 140.0000.0000.0000.0000.0000.0000.0050.0310.1320.3430.366