**BSSA2014 Log-Normal Comparision** 8.0 0.7 1s SA, BSSA2014 Mean = -1.250 km < rJB < 70 km0.6 Density 0.4 0.3 8 < Mw < 8.50.2 0.1 0 8.0 2s SA, BSSA2014 Mean = -1.580.7 0 km < rJB < 70 km0.6 Density 0.4 0.3 8 < Mw < 8.50.2 0.1 0 8.0 3s SA, BSSA2014 0.7 Mean = -2.040 km < rJB < 70 km0.6 Density 0.4 0.3 8 < Mwi < 8.50.3 0.2 0.1 0 0.8 0.7 5s SA, BSSA2014 Mean = -3.130.6 0 km < rJB < 70 kmDensity 0.4 0.3 8 < Mw < 8.50.2 0.1 0 8.0 Mean = -4.5710s SA, BSSA2014 0.7 0.6 0 km < rJB < 70 km0.5 0.4 8 < Mw < 8.5**□** 0.3 0.2 0.1 0 -3.0 -2.5 -2.0 -1.5 -1.0 -0.5 0.0 0.5 1.0 1.5 2.0 2.5 3.0 **BSSA2014 Standard Deviation** ■RSQSim — Standard Normal - Mean

DATASET #1 (line: Histogram, width=1.0; color: 128,128,128)

RSQSim

DATASET #2 (line: Solid, width=2.0; color: 0,0,0)

Standard Normal

DATASET #3 (line: Dashed, width=2.0; color: 0,0,255)

Mean

DATASET #4 (line: Histogram, width=1.0; color: 128,128,128)

**RSQSim** 

DATASET #5 (line: Solid, width=2.0; color: 0,0,0)

Standard Normal

DATASET #6 (line: Dashed, width=2.0; color: 0,0,255)

Mean

DATASET #7 (line: Histogram, width=1.0; color: 128,128,128)

**RSQSim** 

DATASET #8 (line: Solid, width=2.0; color: 0,0,0)

Standard Normal

DATASET #9 (line: Dashed, width=2.0; color: 0,0,255)

Mean

**RSQSim** 

DATASET #10 (line: Histogram, width=1.0; color: 128,128,128)

DATASET #11 (line: Solid, width=2.0; color: 0,0,0)

Standard Normal

DATASET #12 (line: Dashed, width=2.0; color: 0,0,255)

Mean

DATASET #13 (line: Histogram, width=1.0; color: 128,128,128)

RSQSim

DATASET #14 (line: Solid, width=2.0; color: 0,0,0)

Standard Normal

DATASET #15 (line: Dashed, width=2.0; color: 0,0,255)

Mean