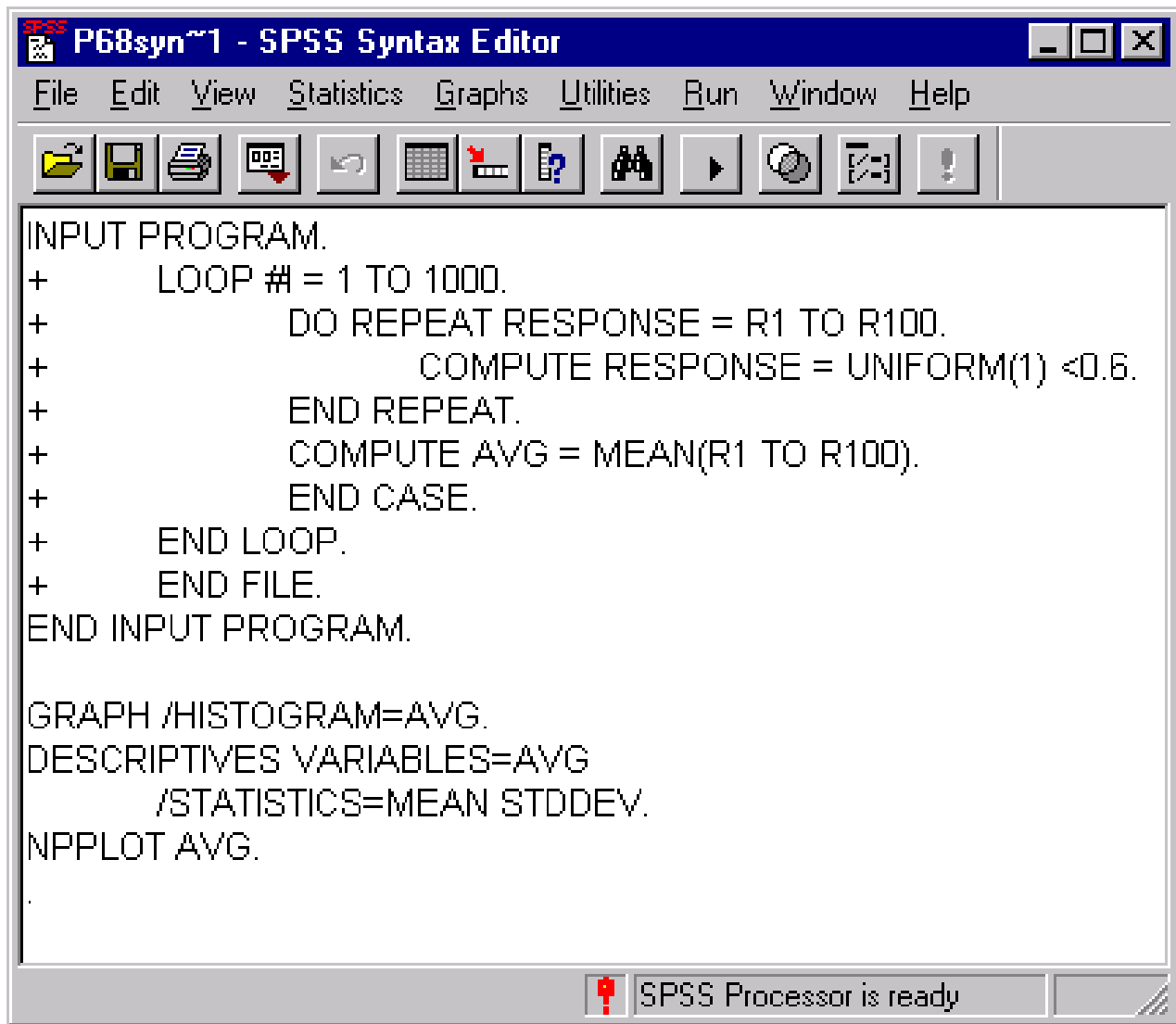


SPSS Chapter 3 Example 3 – Sample Distribution for $N=1000$, $n=100$, and $p=.6$

In the text we have a sampling distribution for a population with $p=.6$. Let's see if we can simulate this problem using SPSS.

Follow these steps to produce a sampling distribution for 1000 samples of size 100, with $p=.6$:

1. Click **File**, click **New**, and click **Syntax**.
2. Enter the following syntax as you see it below.

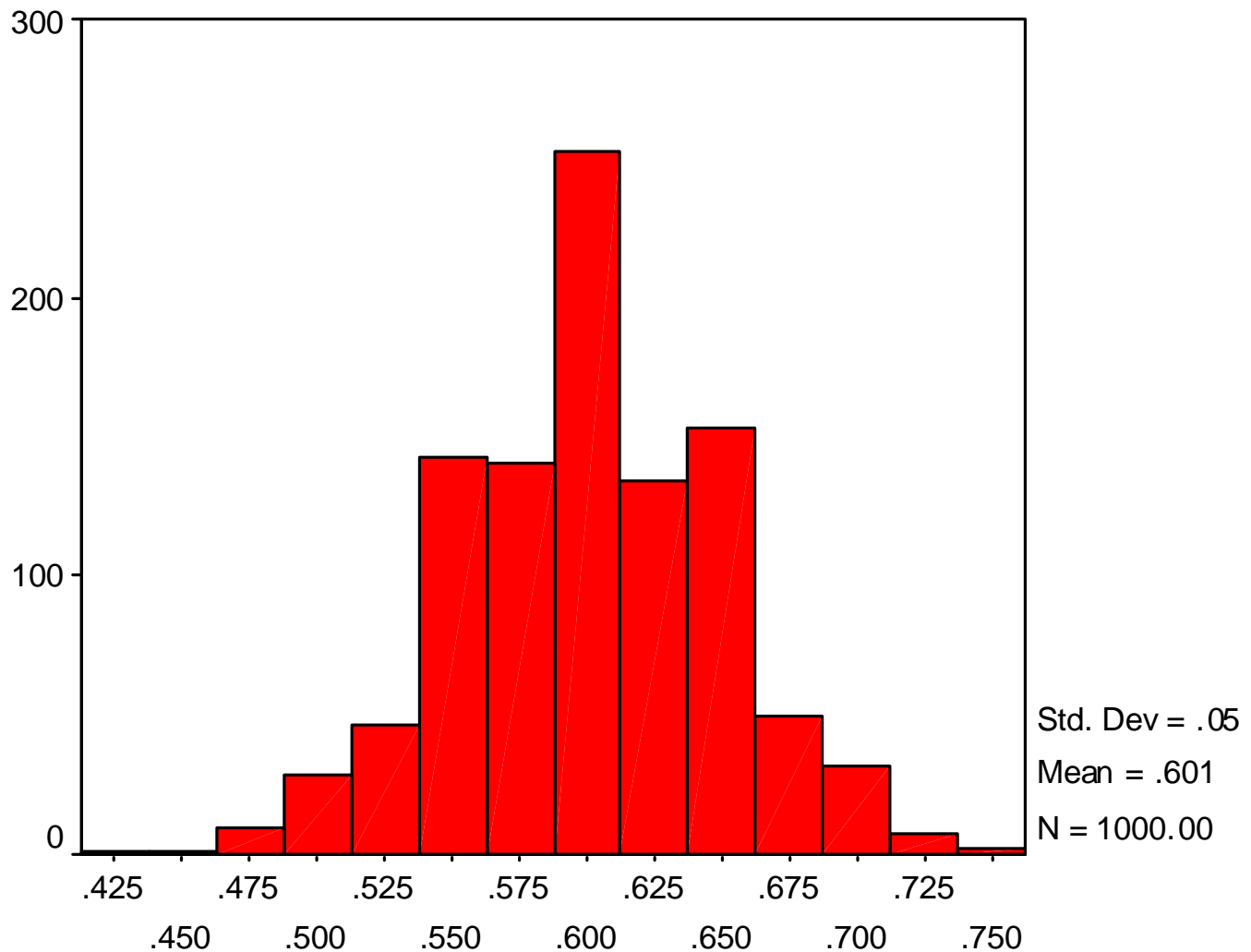


3. Click **Run** and then click **All** (or use the mouse to highlight all the syntax, and then click the ► button.)

The SPSS output for this example of a Sampling Distribution is the following:

Note the normal shape to the histogram. The mean is .601, which is close to the population mean of $p = .6$.

Histogram

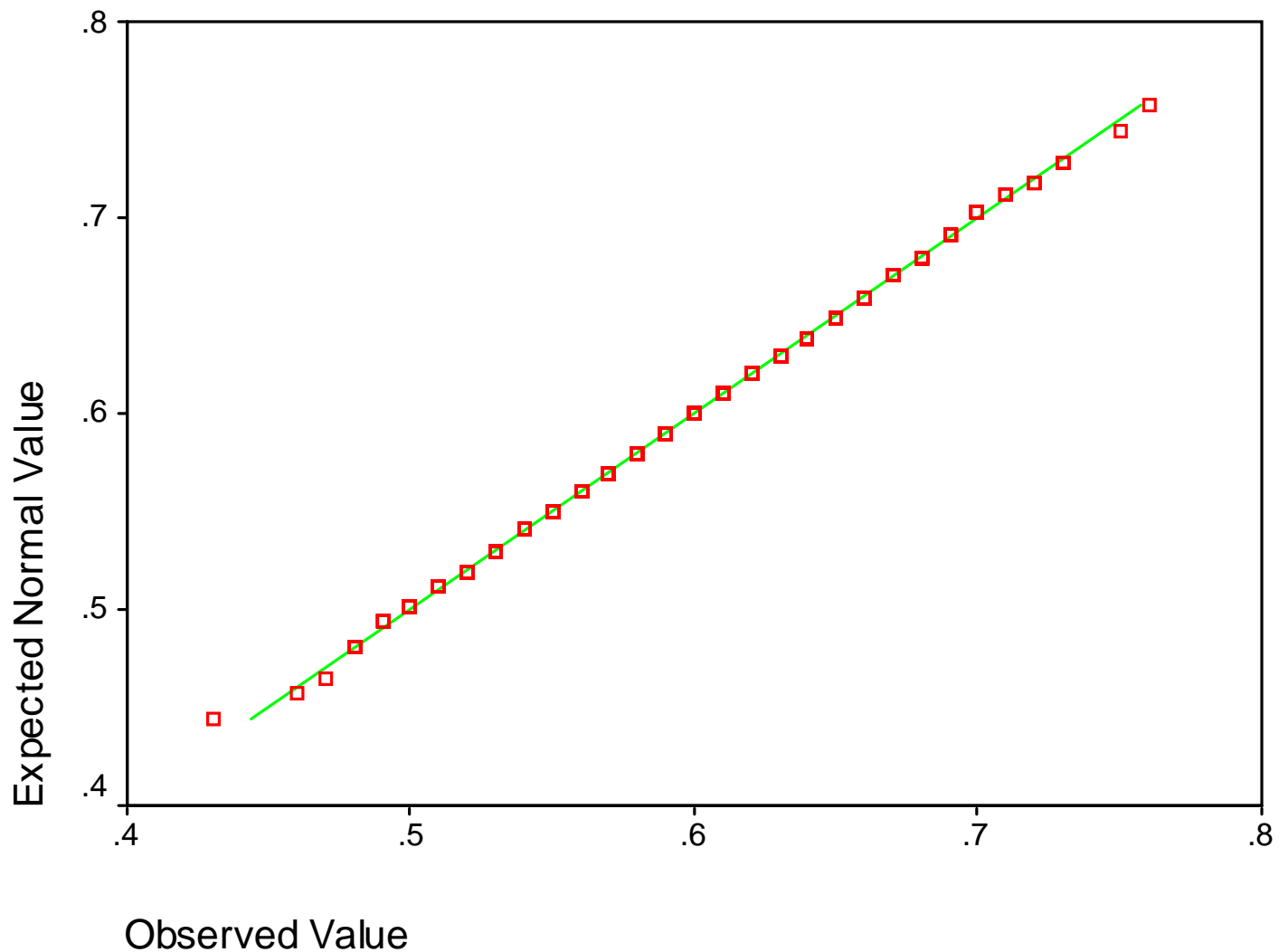


AVG

Descriptive Statistics

	N	Mean	Std. Deviation
AVG	1000	60	4.87E-02
Valid N (listwise)	1000		

Normal Q-Q Plot of AVG



Note the points lie close to the line, indicating normality. Thus both the histogram and Normal Q-Q plot indicate normality for this data.