
 Descriptive Statistics

D:\PROJECTS\NPRA\TOPSRE~1\WINKST~1\ECH.DBF

Variable Name is AREA

N	= 49	Missing or Deleted	= 0
Mean	= 18.38265	St. Dev (n-1)	= 25.8032
Median	= 8.50	St. Dev (n)	= 25.53854
Minimum	= 0.25	S.E.M.	= 3.68617
Maximum	= 146.75	Variance	= 665.80495
Sum	= 900.75	Coef. Var.	= 1.40367

 Percentiles:

0.0%	= 0.25	Minimum
0.5%	= 0.25	
2.5%	= 0.875	
10.0%	= 4.00	
25.0%	= 5.125	Quartile
50.0%	= 8.50	Median
75.0%	= 21.125	Quartile
90.0%	= 50.49998	
97.5%	= 130.3126	
99.5%	= 146.75	
100.0%	= 146.75	Maximum

Tukey Five Number Summary:

Minimum	= 0.25
Fourth	= 5.25
Median	= 8.50
Fourth	= 20.75
Maximum	= 146.75

Test for normality results:
 D = .252 p <= 0.001

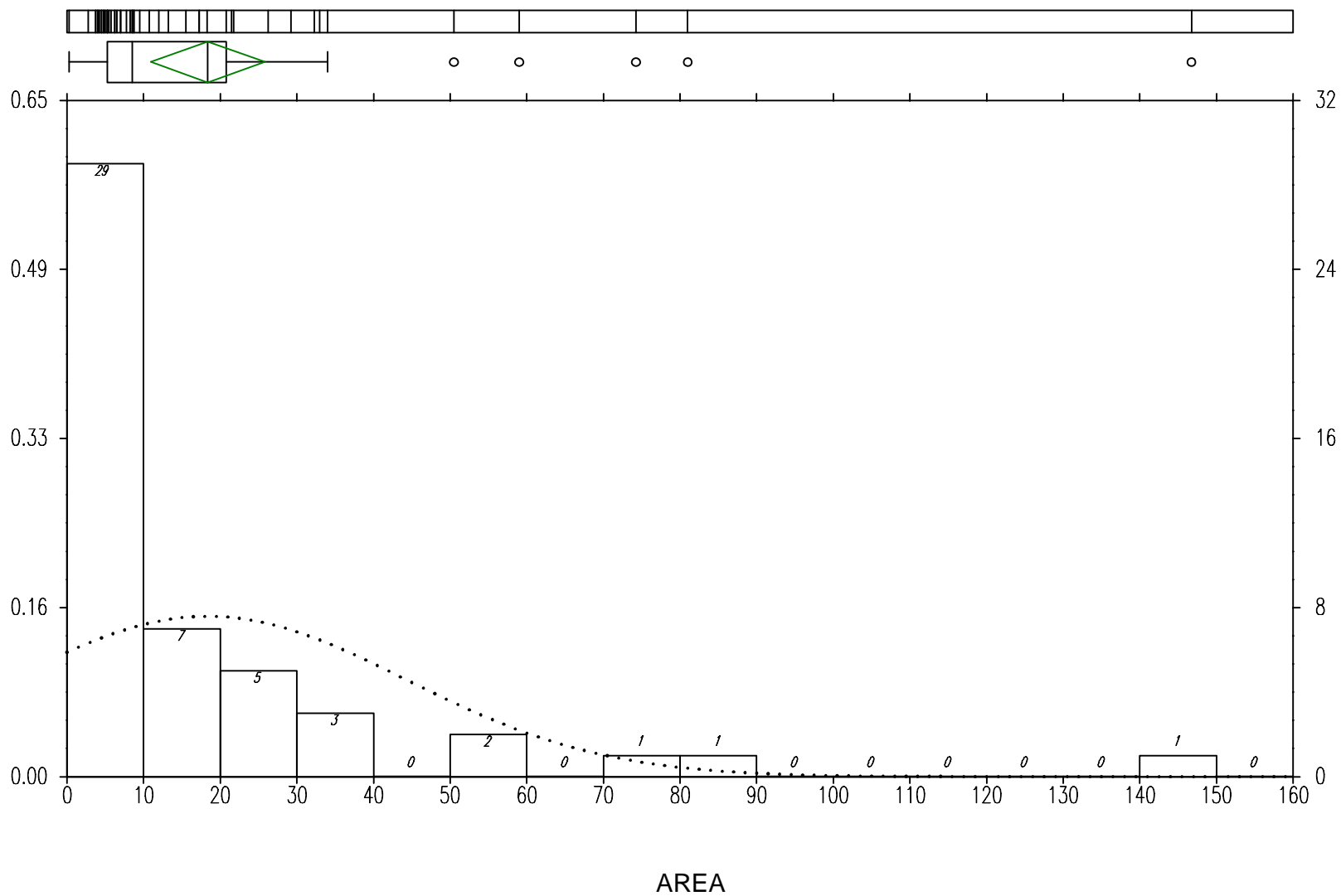
Five number summary was calculated using the technique from UNDERSTANDING ROBUST AND EXPLORATORY DATA ANALYSIS by Hoaglin, Mosteller And Tukey. See complete reference in WINKS manual.

Confidence Intervals about the mean:

80 % C.I. based on a t(48) critical value of 1.3 is	(13.59063, 23.17468)
90 % C.I. based on a t(48) critical value of 1.68 is	(12.18989, 24.57542)
95 % C.I. based on a t(48) critical value of 2.02 is	(10.93659, 25.82872)
98 % C.I. based on a t(48) critical value of 2.41 is	(9.49898, 27.26633)
99 % C.I. based on a t(48) critical value of 2.69 is	(8.46685, 28.29845)

The normality test suggests that the data are not normally distributed. The test for normality is a modified Kolmogorov-Smirnov test based on papers by Lilliefors and Dallal & Wilkinson. References in latenews.txt.

Echooka - Closure areas



 Descriptive Statistics

D:\PROJECTS\NPRA\TOPSRE~1\WINKST~1\ECH.DBF

Variable Name is HEIGHT

N	= 49	Missing or Deleted	= 0
Mean	= 203.29796	St. Dev (n-1)	= 173.40172
Median	= 115.30	St. Dev (n)	= 171.6232
Minimum	= 5.60	S.E.M.	= 24.77167
Maximum	= 739.80	Variance	= 30068.1576
Sum	= 9961.60002	Coef. Var.	= 0.85294

 Percentiles:

0.0%	= 5.60	Minimum
0.5%	= 5.60	
2.5%	= 8.30	
10.0%	= 51.30	
25.0%	= 85.25	Quartile
50.0%	= 115.30	Median
75.0%	= 277.90	Quartile
90.0%	= 427.00	
97.5%	= 723.2251	
99.5%	= 739.80	
100.0%	= 739.80	Maximum

Tukey Five Number Summary:

Minimum	= 5.60
Fourth	= 87.70
Median	= 115.30
Fourth	= 271.60
Maximum	= 739.80

Test for normality results:
 D = .204 p <= 0.001

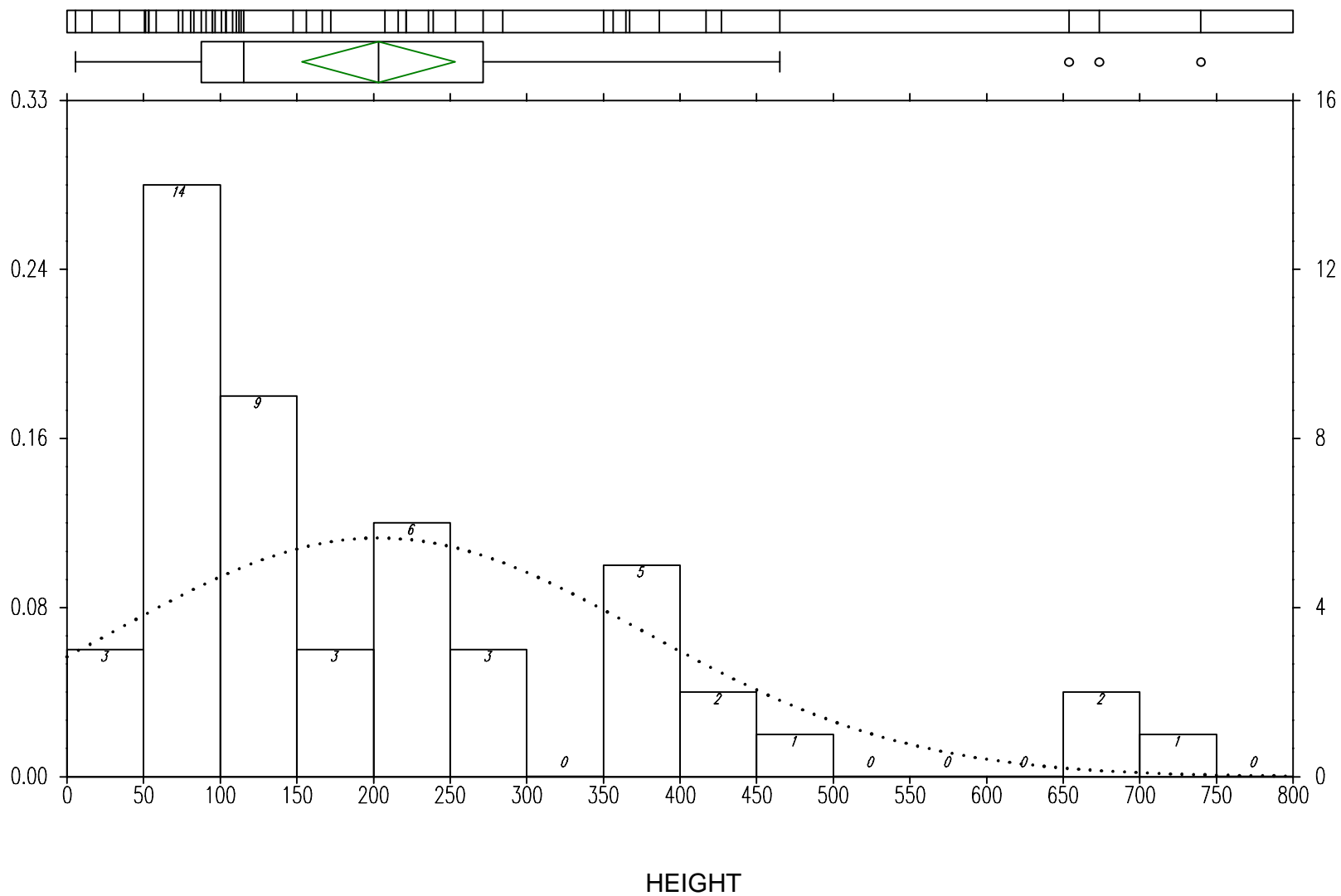
Five number summary was calculated using the technique from UNDERSTANDING ROBUST AND EXPLORATORY DATA ANALYSIS by Hoaglin, Mosteller And Tukey. See complete reference in WINKS manual.

Confidence Intervals about the mean:

80 % C.I. based on a t(48) critical value of 1.3 is	(171.09478, 235.50114)
90 % C.I. based on a t(48) critical value of 1.68 is	(161.68155, 244.91437)
95 % C.I. based on a t(48) critical value of 2.02 is	(153.25918, 253.33674)
98 % C.I. based on a t(48) critical value of 2.41 is	(143.59822, 262.9977)
99 % C.I. based on a t(48) critical value of 2.69 is	(136.66215, 269.93376)

The normality test suggests that the data are not normally distributed. The test for normality is a modified Kolmogorov-Smirnov test based on papers by Lilliefors and Dallal & Wilkinson. References in latenews.txt.

Echooka - Closure heights



 Linear Regression and Correlation

D:\PROJECTS\NPRA\TOPSRE~1\WINKST~1\ECH.DBF

Dependent variable is HEIGHT, 1 independent variables, 49 cases.

Variable	Coefficient	St. Error	t-value	p(2 tail)
Intercept	131.24676	25.054887	5.2383697	<.001
AREA	3.9195214	.7962407	4.9225336	<.001

R-Square = 0.3402 Adjusted R-Square = 0.3261

Analysis of Variance to Test Regression Relation

Source	Sum of Sqs	df	Mean Sq	F	p-value
Regression	490969.3	1	490969.3	24.231337	<.001
Error	952302.27	47	20261.75		
Total	1443271.56499	48			

A low p-value suggests that the dependent variable HEIGHT may be linearly related to independent variable(s).

MEAN X =	18.383	S.D. X =	25.803	CORR XSS =	31958.64
MEAN Y =	203.298	S.D. Y =	173.402	CORR YSS =	1443271.0
REGRESSION MS=	490969.298	RESIDUAL MS=	20261.75		

Pearson's r (Correlation Coefficient)= 0.5832

The linear regression equation is:

$$\text{HEIGHT} = 131.2468 + 3.919521 * \text{AREA}$$

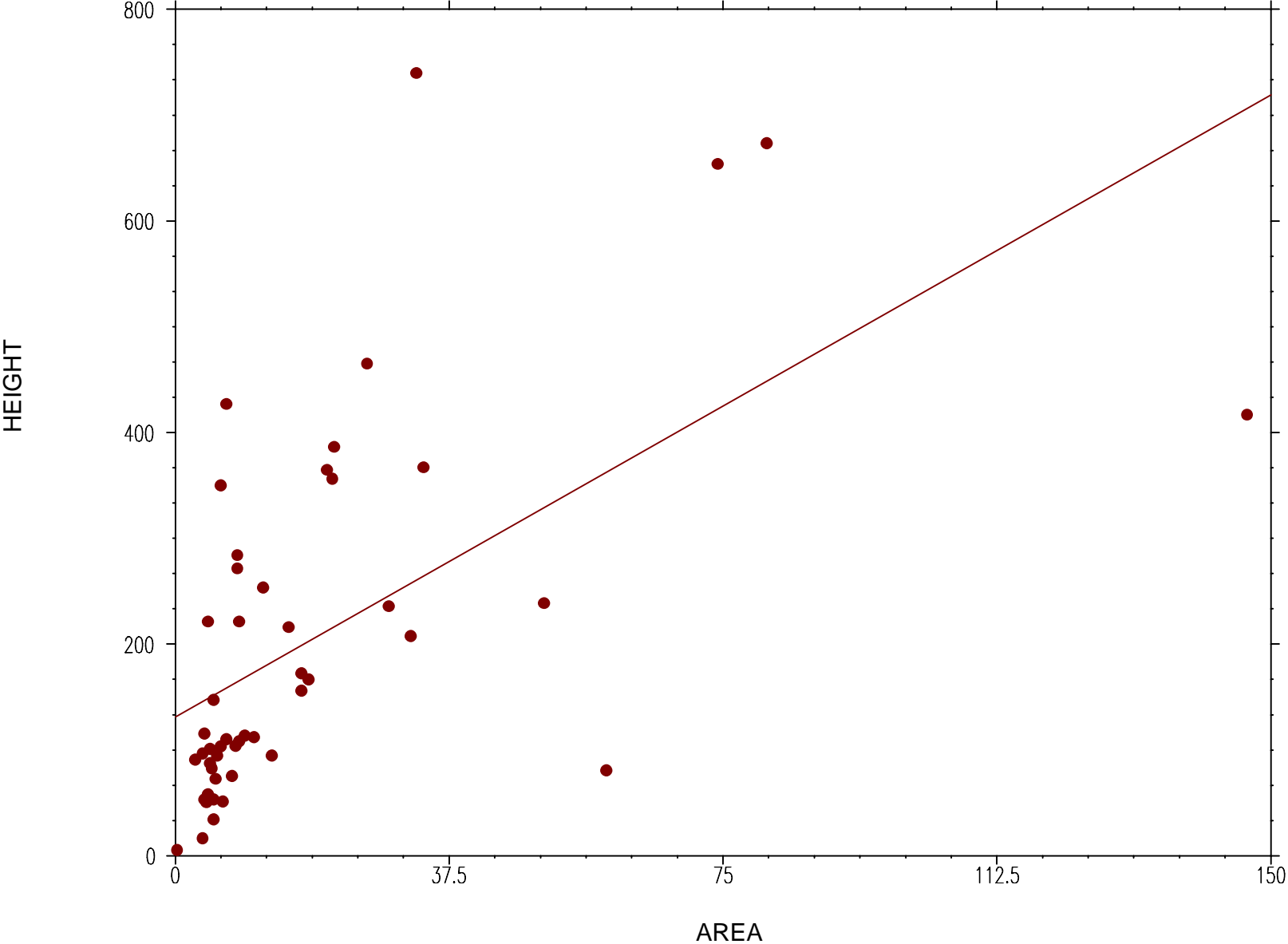
Test of hypothesis to determine significance of relationship:

H(null): Slope = 0 or H(null): r = 0 (two-tailed test)

t = 4.92 with 47 degrees of freedom p <= .001

Note: A low p-value implies that the slope does not = 0.

Echooka Closures



Correlation Coefficients D:\PROJECTS\NPRA\TOPSRE~1\WINKST~1\ECH.DBF

Variables used : AREA and HEIGHT

Number of cases used: 49

Pearson's r (Correlations Coefficient) = 0.5832 R-Square = 0.3402

Test of hypothesis to determine significance of relationship:

H(null): Slope = 0 or H(null): r = 0

(Pearson's) t = 4.922534 with 47 d.f. p < 0.001
(A low p-value implies that the slope does not = 0.)

Spearman's Rank Correlation Coefficient = 0.7119

(Spearman's) t = 6.950308 with 47 d.f. p < 0.001

 Linear Regression and Correlation

D:\PROJECTS\NPRA\TOPSRE~1\WINKST~1\ECH.DBF

Dependent variable is LOGHEIGHT, 1 independent variables, 49 cases.

Variable	Coefficient	St. Error	t-value	p(2 tail)
Intercept	3.4058339	.2143309	15.89054	<.001
LOGAREA	.6626362	.0837244	7.9144977	<.001

R-Square = 0.5713 Adjusted R-Square = 0.5622

Analysis of Variance to Test Regression Relation

Source	Sum of Sqs	df	Mean Sq	F	p-value
Regression	24.684237	1	24.684237	62.639273	<.001
Error	18.521274	47	.3940697		
Total	43.205512	48			

A low p-value suggests that the dependent variable LOGHEIGHT may be linearly related to independent variable(s).

MEAN X =	2.325	S.D. X =	1.082	CORR XSS =	56.217
MEAN Y =	4.947	S.D. Y =	.949	CORR YSS =	43.206
REGRESSION MS=	24.684	RESIDUAL MS=		.394	

Pearson's r (Correlation Coefficient)= 0.7559

The linear regression equation is:

$$\text{LOGHEIGHT} = 3.405834 + .6626362 * \text{LOGAREA}$$

Test of hypothesis to determine significance of relationship:

H(null): Slope = 0 or H(null): r = 0 (two-tailed test)

t = 7.91 with 47 degrees of freedom p <= .001

Note: A low p-value implies that the slope does not = 0.

Echooka Closures

