Curve Fit

Model Description

Model Name		MOD_1
Dependent Variable	1	traffic flow
Equation	1	Linear
Independent Variable		vehicle speed
Constant		Included
Variable Whose Values Label Observations in Plots		Unspecified

Case Processing Summary

	N
Total Cases	6
Excluded Cases[a]	0
Forecasted Cases	0
Newly Created Cases	0

a. Cases with a missing value in any variable are excluded from the analysis.

Variable Processing Summary

		Variables	
		Dependent	Independent
		traffic flow	vehicle speed
Number of Positive Values		6	6
Number of Zeros		0	0
Number of Negative Values		0	0
Number of Missing Values	User-Missing	0	0
	System-Missing	0	0

traffic flow

Linear

Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
,943	,888	,861	32,294

The independent variable is vehicle speed.

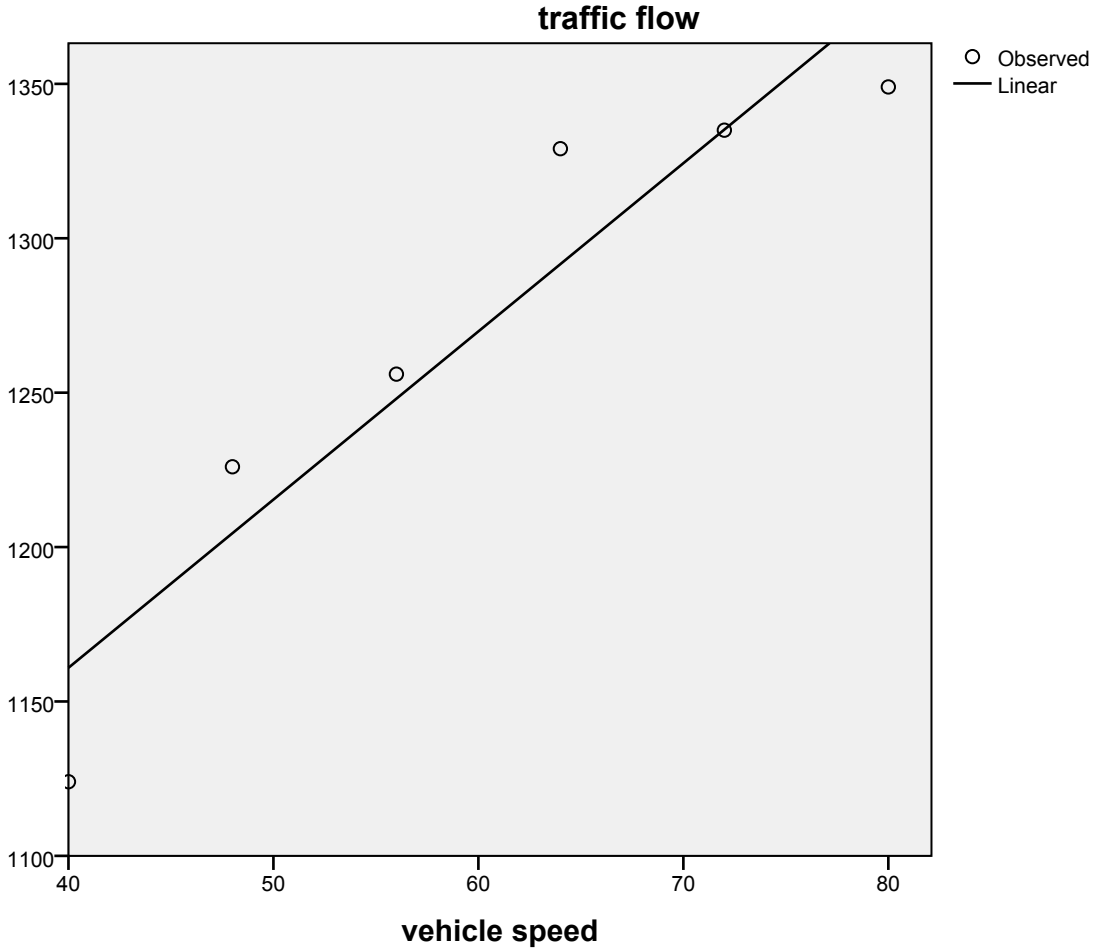
ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	33223,214	1	33223,214	31,856	,005
Residual	4171,619	4	1042,905		
Total	37394,833	5			

The independent variable is vehicle speed.

Coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
vehicle speed	5,446	,965	,943	5,644	,005
(Constant)	943,048	59,380		15,882	,000



Regression

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	xsquare, vehicle speed[b]	.	Enter

a. Dependent Variable: traffic flow

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,990[a]	,980	,967	15,826

a. Predictors: (Constant), xsquare, vehicle speed

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	36643,405	2	18321,702	73,147	,003[b]
	Residual	751,429	3	250,476		
	Total	37394,833	5			

a. Dependent Variable: traffic flow

b. Predictors: (Constant), xsquare, vehicle speed

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	432,571	141,176		3,064	,055
	vehicle speed	23,393	4,880	4,048	4,794	,017
	xsquare	-,150	,040	-3,121	-3,695	,034

a. Dependent Variable: traffic flow

Curve Fit

Model Description

Model Name		MOD_2
Dependent Variable	1	traffic flow
Equation	1	Compound[a]
	2	Power[a]
Independent Variable		vehicle speed
Constant		Included
Variable Whose Values Label Observations in Plots		Unspecified

a. The model requires all non-missing values to be positive.

Case Processing Summary

	N
Total Cases	6
Excluded Cases[a]	0
Forecasted Cases	0
Newly Created Cases	0

a. Cases with a missing value in any variable are excluded from the analysis.

Variable Processing Summary

		Variables	
		Dependent	Independent
		traffic flow	vehicle speed
Number of Positive Values		6	6
Number of Zeros		0	0
Number of Negative Values		0	0
Number of Missing Values	User-Missing	0	0
	System-Missing	0	0

traffic flow

Compound

Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
,936	,876	,845	,028

The independent variable is vehicle speed.

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	,021	1	,021	28,245	,006
Residual	,003	4	,001		
Total	,024	5			

The independent variable is vehicle speed.

Coefficients

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
vehicle speed	1,004	,001	2,550	1215,398	,000
(Constant)	974,842	49,356		19,751	,000

The dependent variable is ln(traffic flow).

Power

Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
,964	,929	,911	,021

The independent variable is vehicle speed.

ANOVA

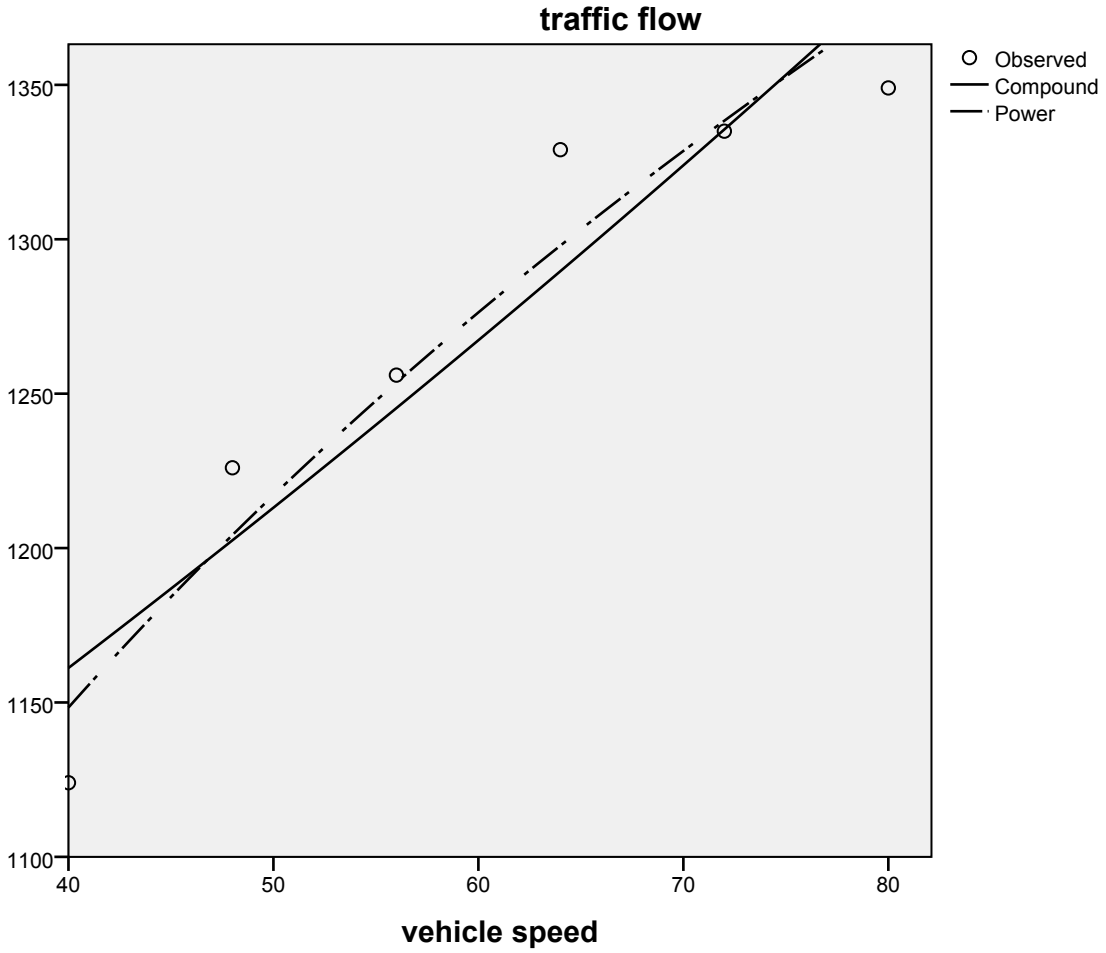
	Sum of Squares	df	Mean Square	F	Sig.
Regression	,023	1	,023	52,445	,002
Residual	,002	4	,000		
Total	,024	5			

The independent variable is vehicle speed.

Coefficients

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
ln(vehicle speed)	,261	,036	,964	7,242	,002
(Constant)	439,247	64,375		6,823	,002

The dependent variable is ln(traffic flow).


traffic flow
Observed
Compound
Power
1350
1300
1250
1200
1150
1100
40
50
60
70
80
vehicle speed