

### The CONTENTS Procedure

<b>Data Set Name</b>	WORK.COVID	<b>Observations</b>	62
<b>Member Type</b>	DATA	<b>Variables</b>	24
<b>Engine</b>	V9	<b>Indexes</b>	0
<b>Created</b>	04/23/2020 19:07:01	<b>Observation Length</b>	208
<b>Last Modified</b>	04/23/2020 19:07:01	<b>Deleted Observations</b>	0
<b>Protection</b>		<b>Compressed</b>	NO
<b>Data Set Type</b>		<b>Sorted</b>	NO
<b>Label</b>			
<b>Data Representation</b>	SOLARIS_X86_64, LINUX_X86_64, ALPHA_TRU64, LINUX_IA64		
<b>Encoding</b>	utf-8 Unicode (UTF-8)		

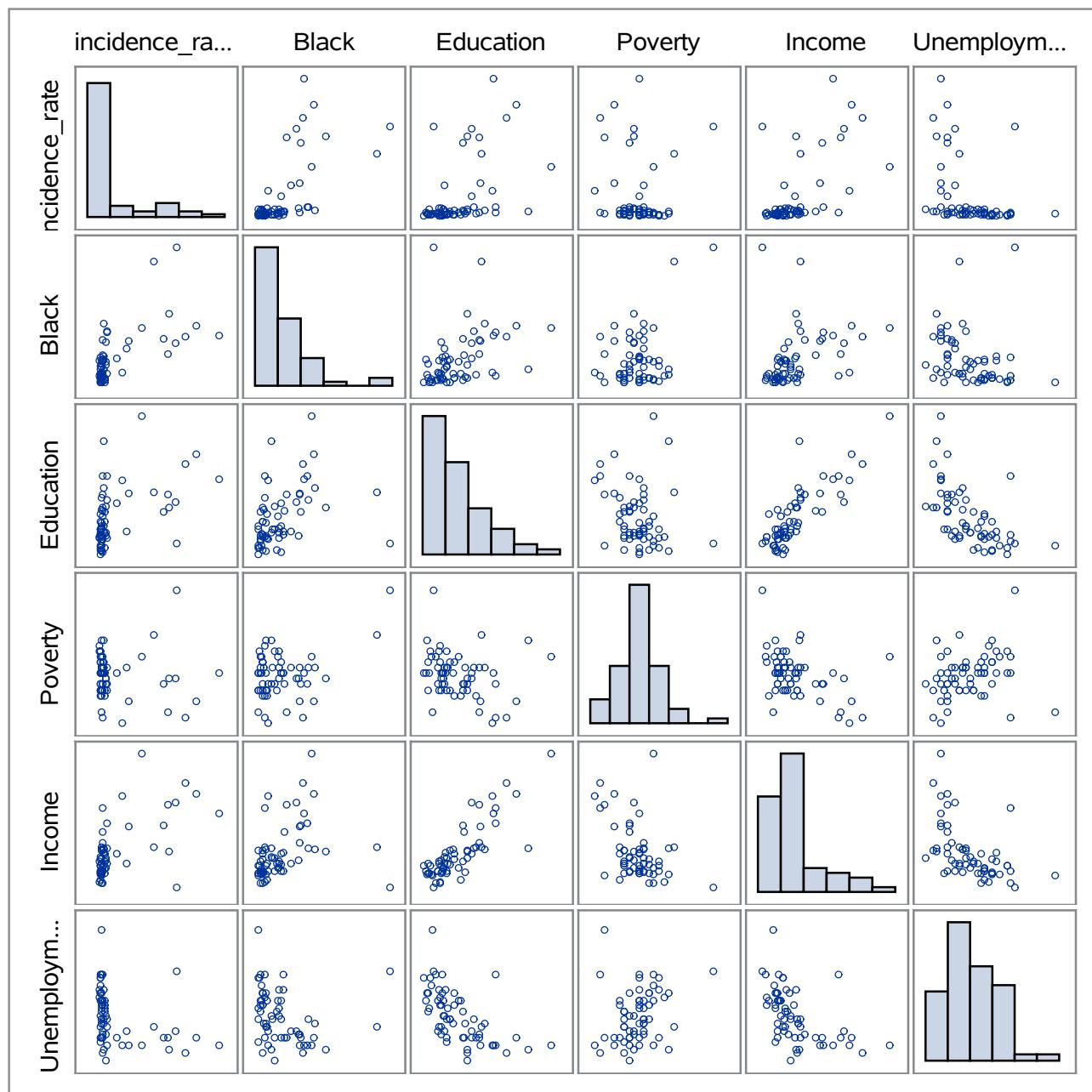
Engine/Host Dependent Information	
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<b>Number of Data Set Pages</b>	1
<b>First Data Page</b>	1
<b>Max Obs per Page</b>	629
<b>Obs in First Data Page</b>	62
<b>Number of Data Set Repairs</b>	0
<b>Filename</b>	/saswork/SAS_work371D0001272D_odaws03-usw2.oda.sas.com/SAS_work23D30001272D_odaws03-usw2.oda.sas.com/covid.sas7bdat
<b>Release Created</b>	9.0401M6
<b>Host Created</b>	Linux
<b>Inode Number</b>	537069548
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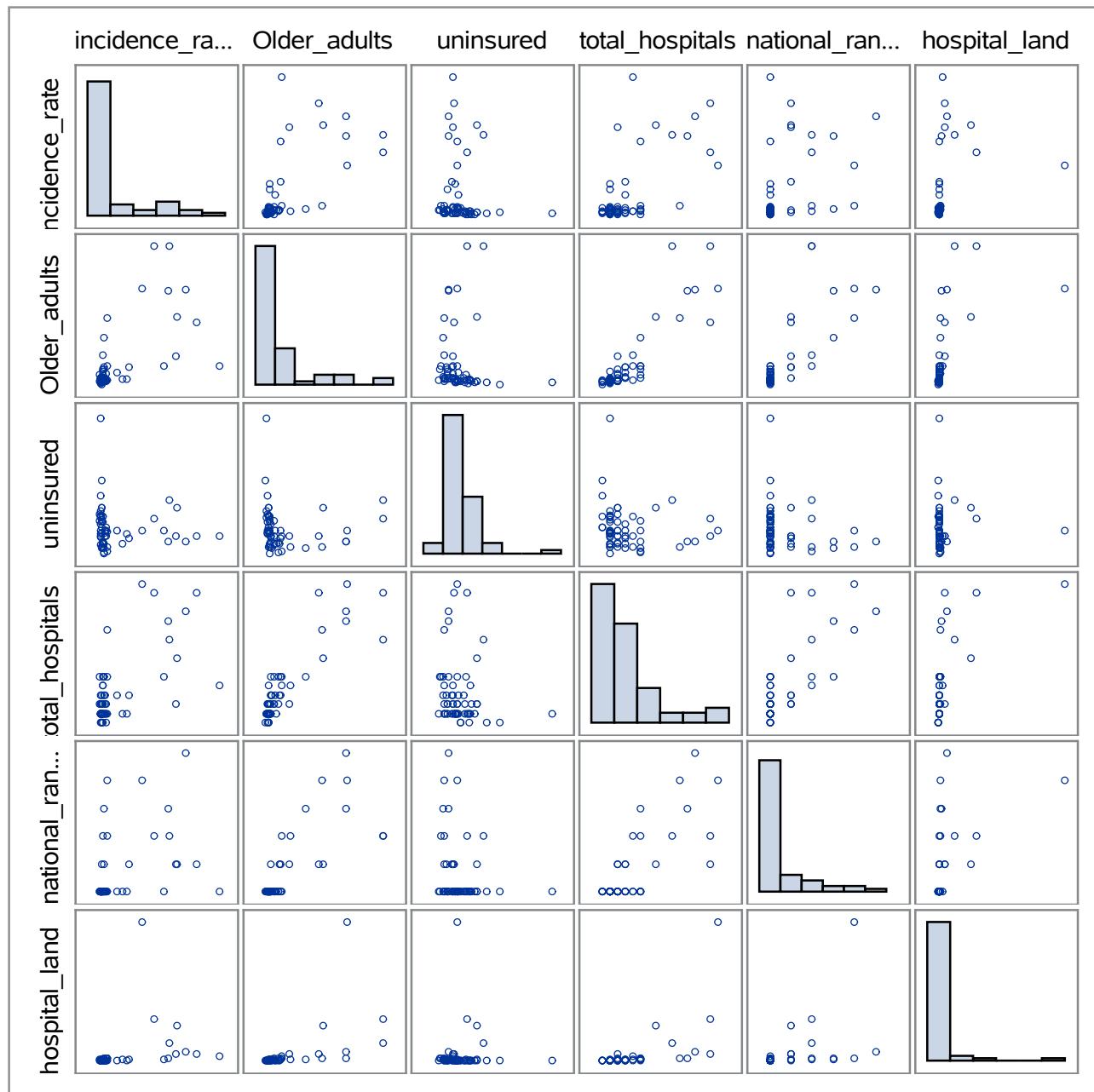
#### Alphabetic List of Variables and Attributes

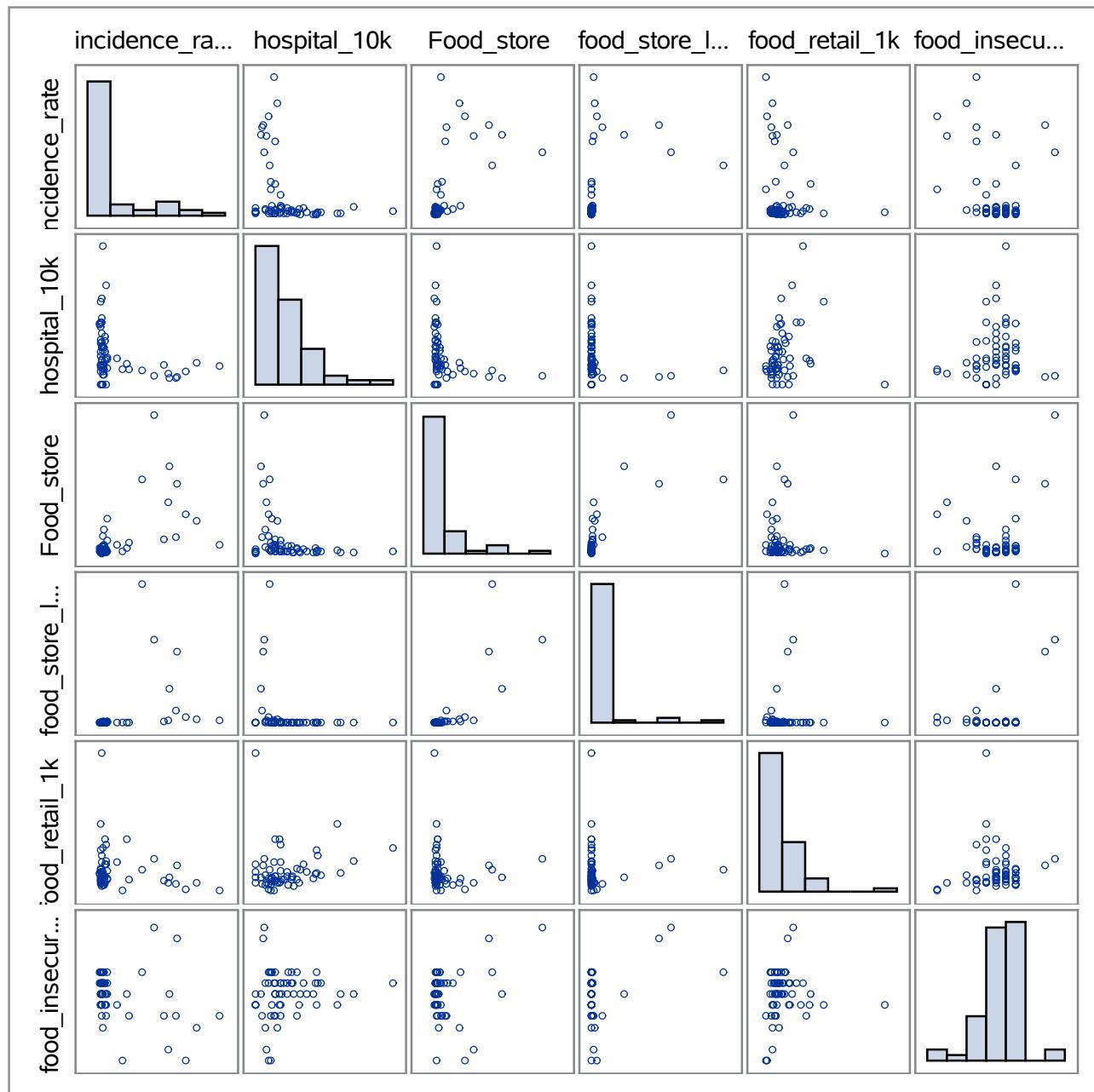
#	Variable	Type	Len	Format	Informat
5	Black	Num	8	BEST12.	BEST32.
1	County	Char	18	\$18.	\$18.
21	Diabetes_prev	Num	8	BEST12.	BEST32.
6	Education	Num	8	BEST12.	BEST32.
16	Food_store	Num	8	BEST12.	BEST32.
20	Google_trend	Num	8	BEST12.	BEST32.
22	Hypertension_prev	Num	8	BEST12.	BEST32.

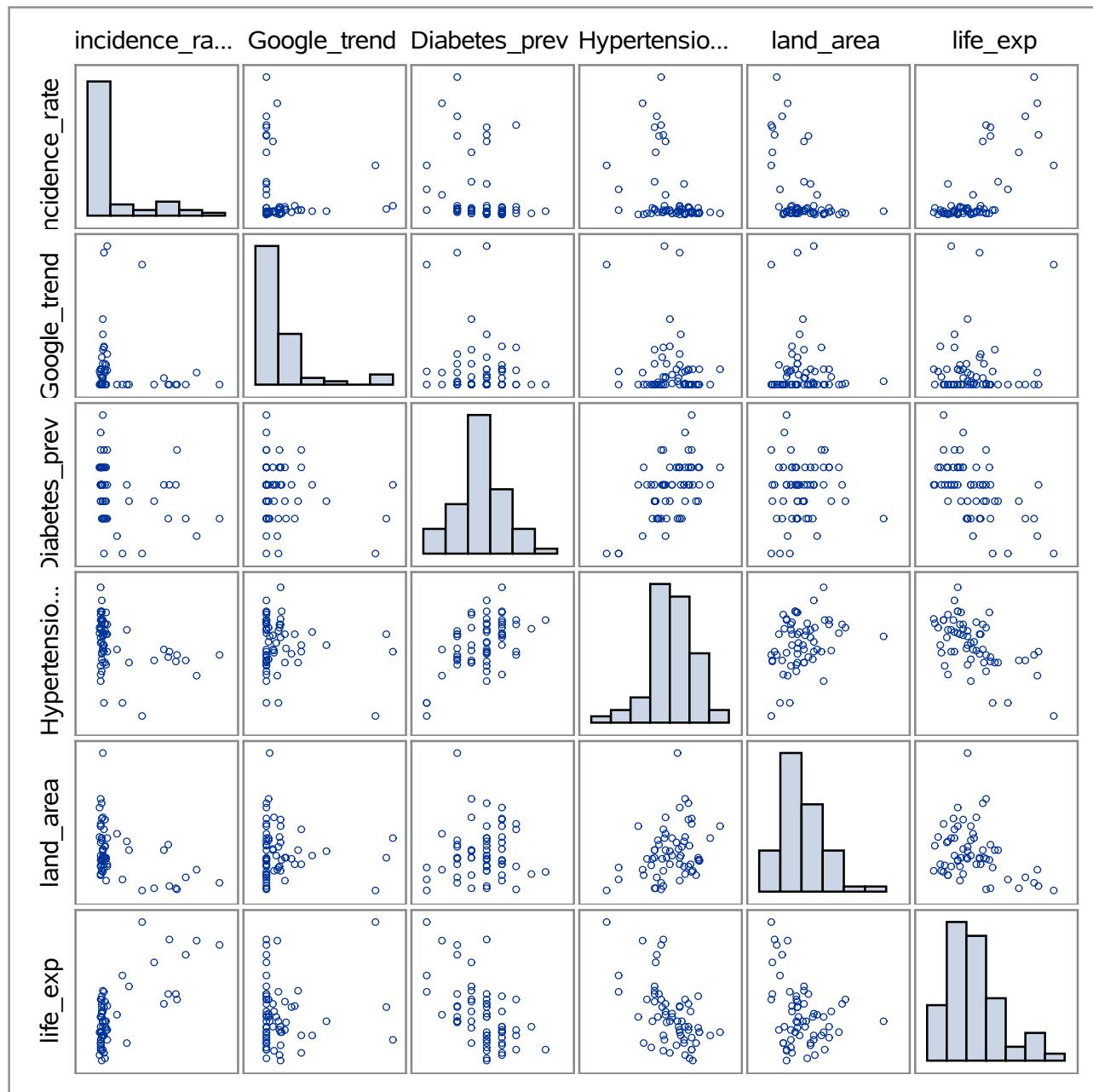
## The CONTENTS Procedure

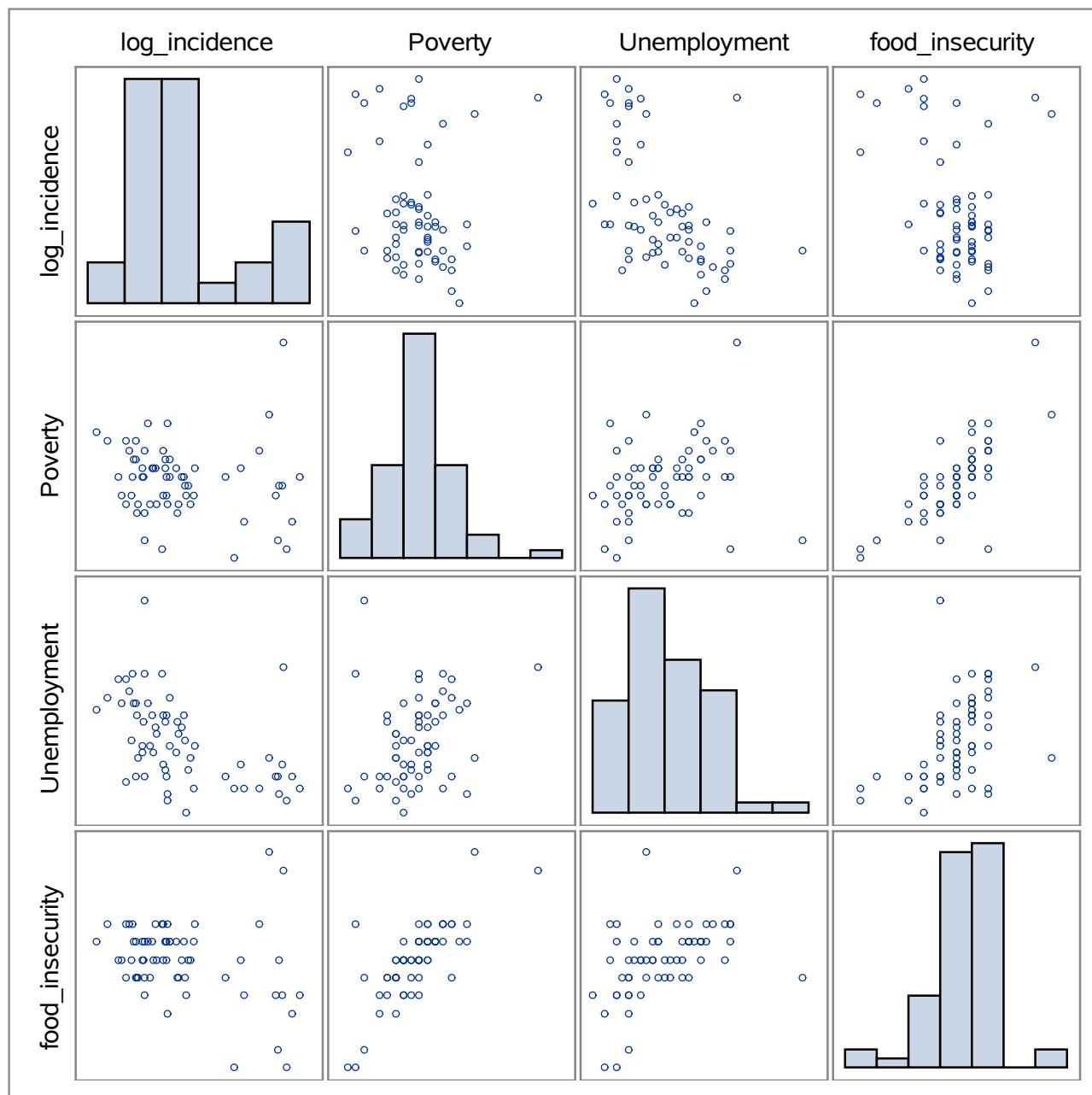
Alphabetic List of Variables and Attributes					
#	Variable	Type	Len	Format	Informat
8	Income	Num	8	BEST12.	BEST32.
10	Older_adults	Num	8	BEST12.	BEST32.
7	Poverty	Num	8	BEST12.	BEST32.
9	Unemployment	Num	8	BEST12.	BEST32.
3	fatality_rate	Num	8	BEST12.	BEST32.
19	food_insecurity	Num	8	BEST12.	BEST32.
18	food_retail_1k	Num	8	BEST12.	BEST32.
17	food_store_land	Num	8	BEST12.	BEST32.
15	hospital_10k	Num	8	BEST12.	BEST32.
14	hospital_land	Num	8	BEST12.	BEST32.
2	incidence_rate	Num	8	BEST12.	BEST32.
23	land_area	Num	8	BEST12.	BEST32.
24	life_exp	Num	8	BEST12.	BEST32.
13	national_rankings	Num	8	BEST12.	BEST32.
4	population	Num	8	BEST12.	BEST32.
12	total_hospitals	Num	8	BEST12.	BEST32.
11	uninsured	Num	8	BEST12.	BEST32.

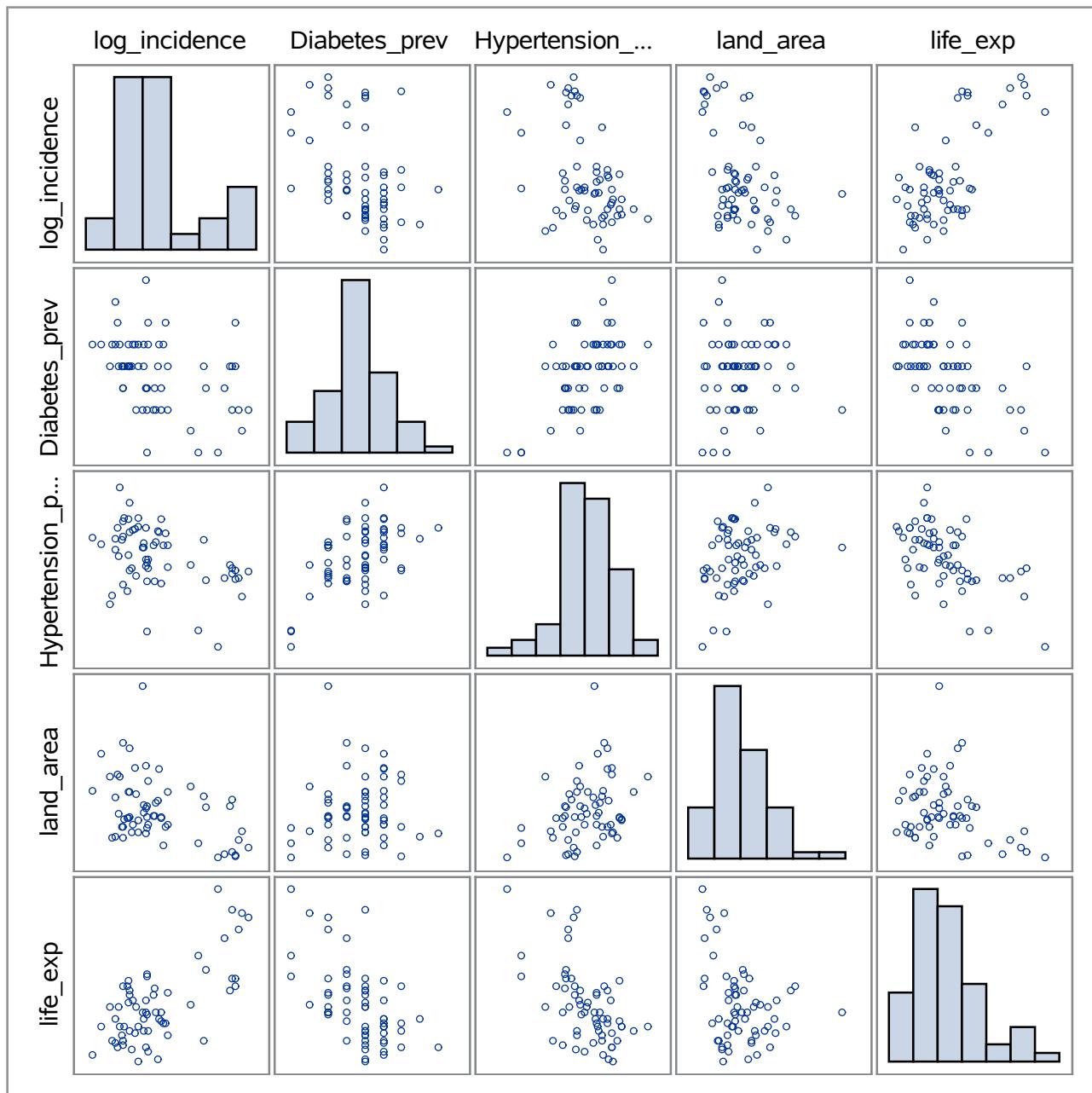


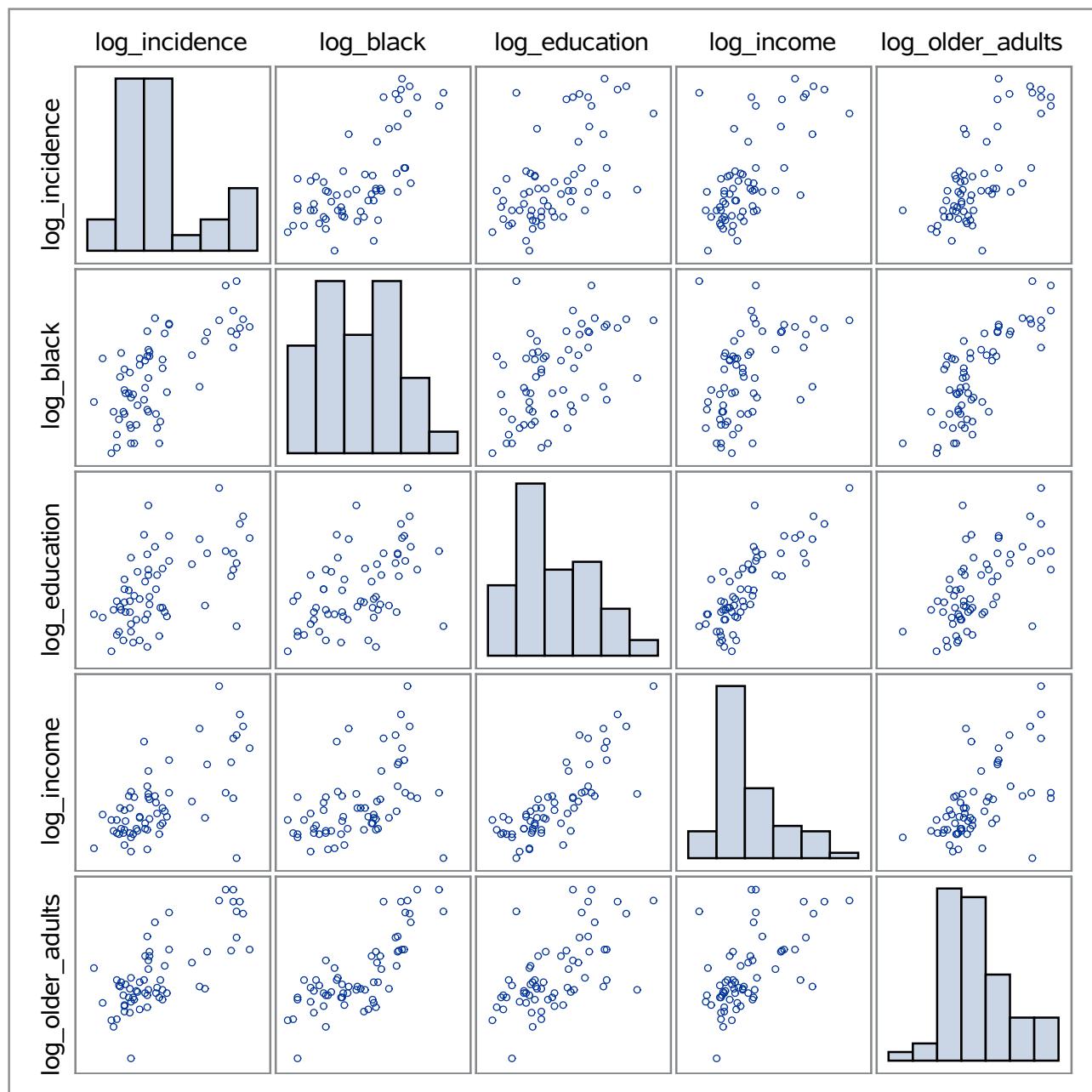


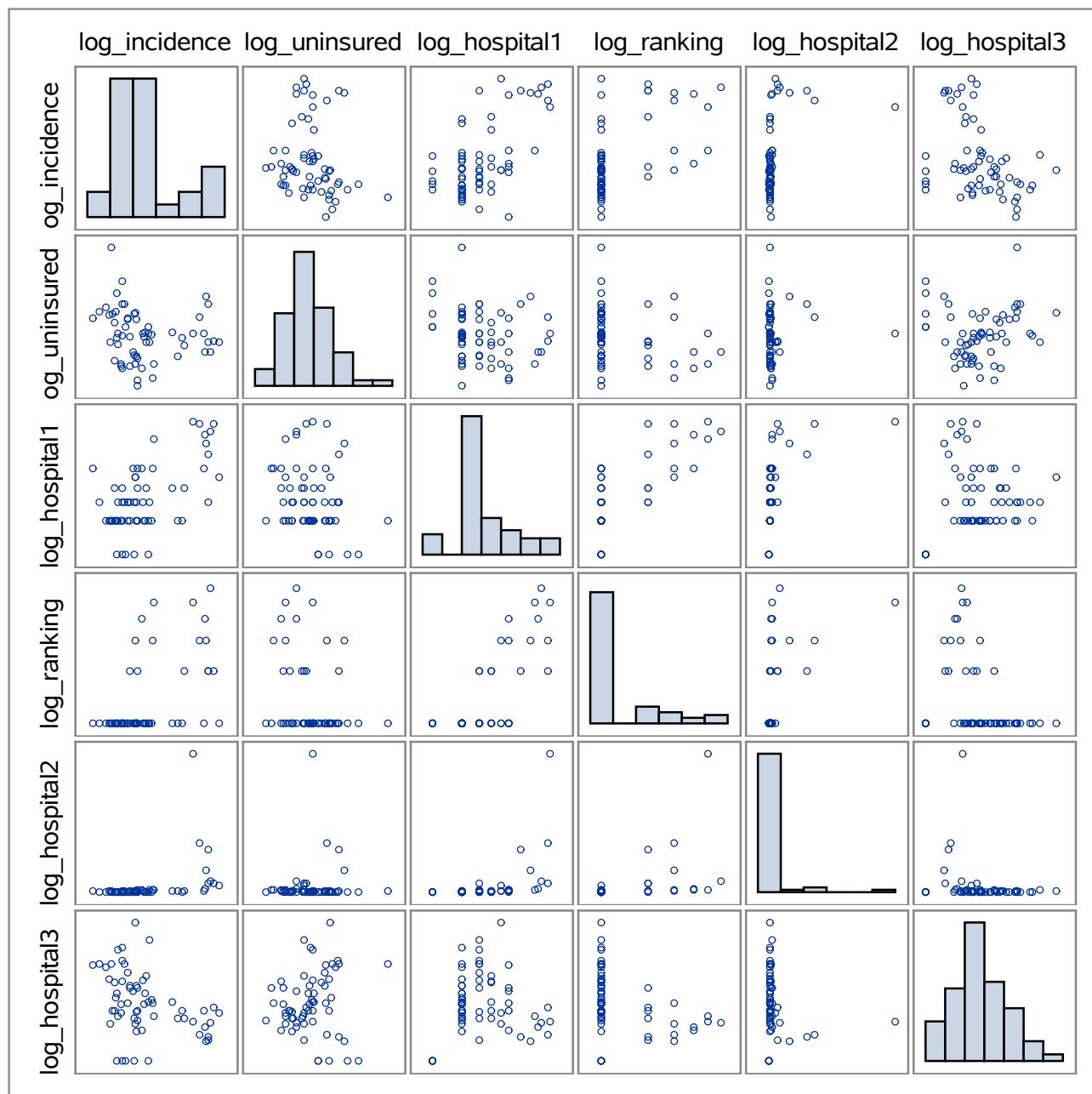


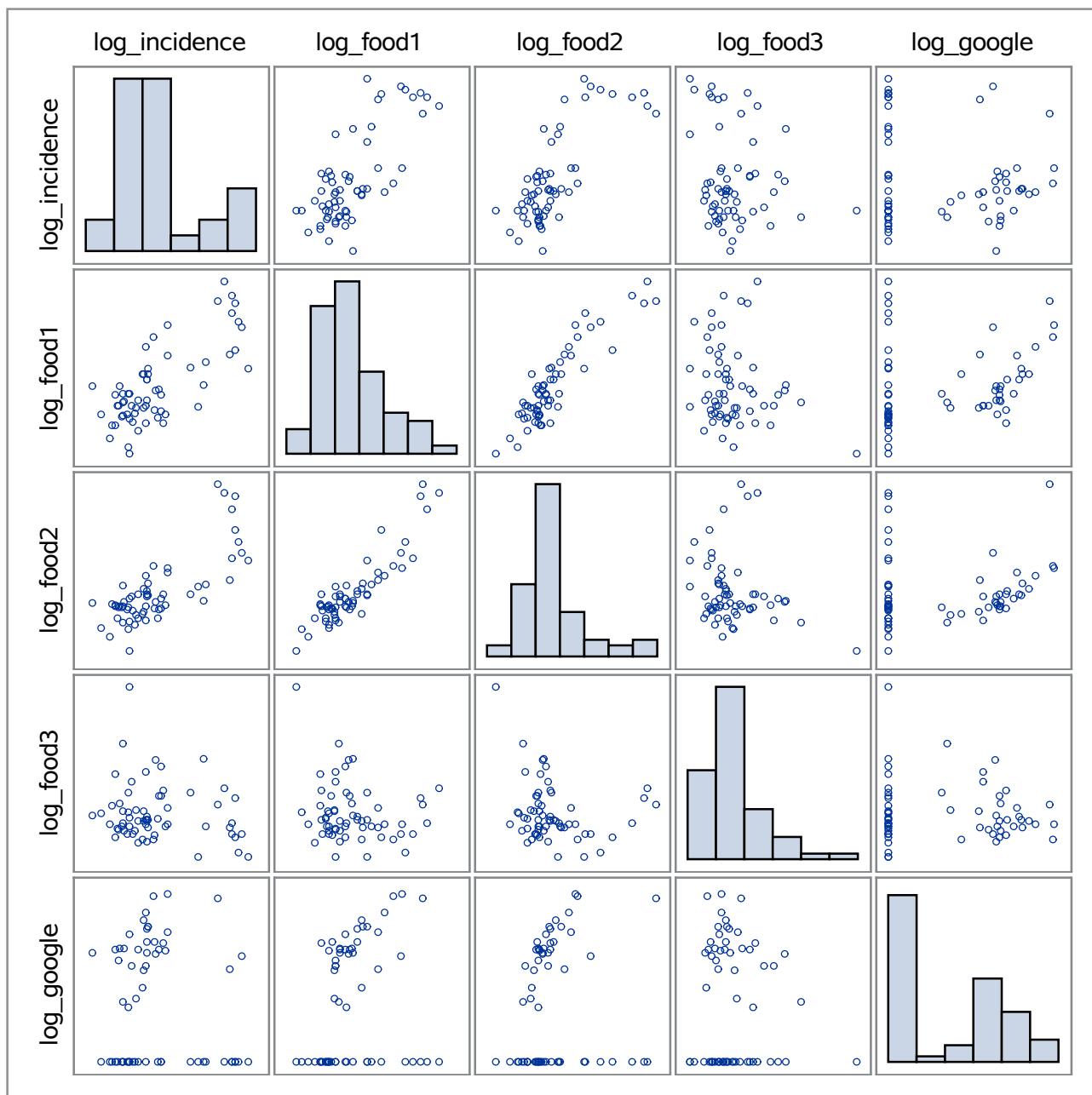












**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: log\_incidence**

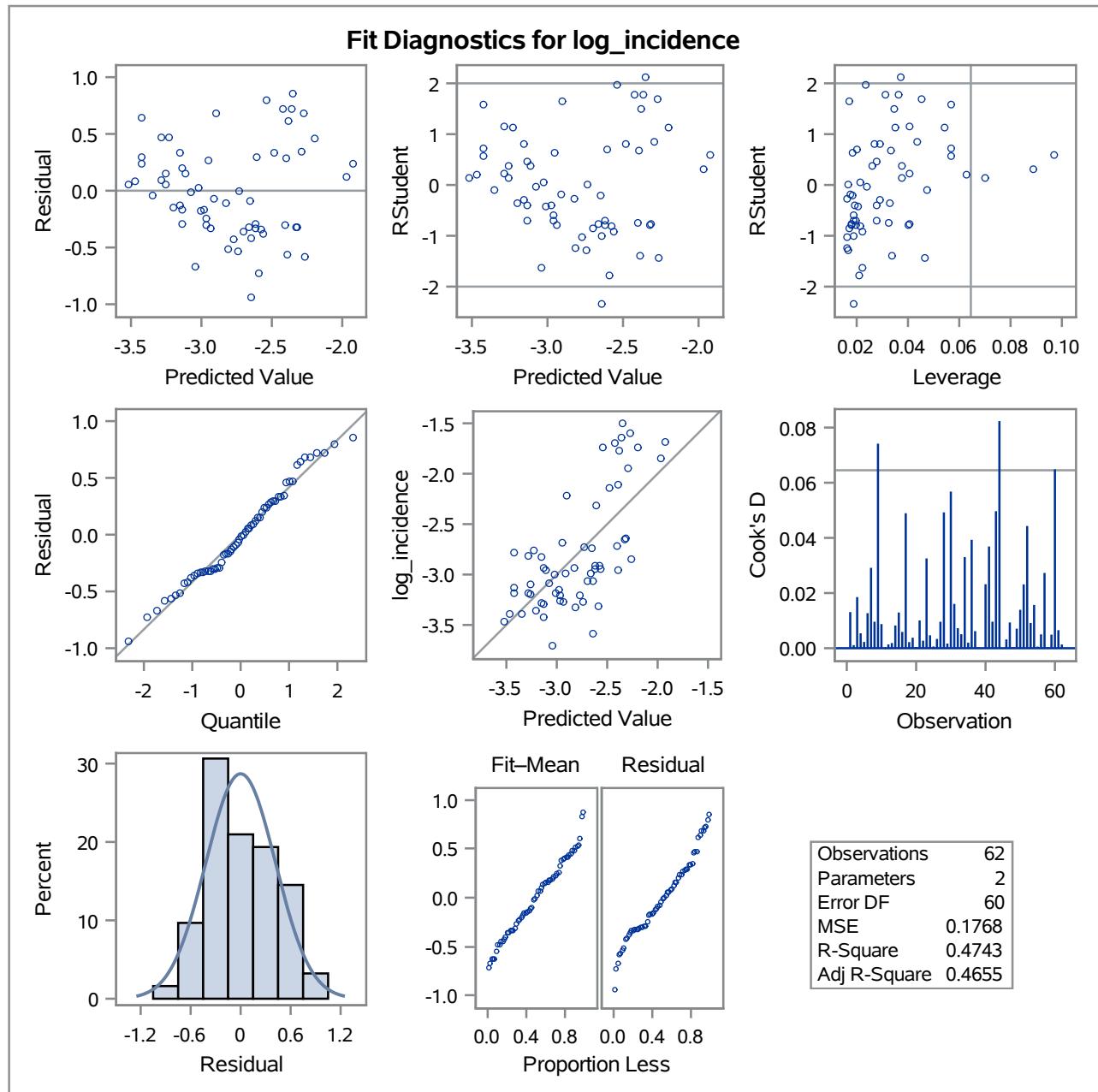
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	9.57186	9.57186	54.13	<.0001
Error	60	10.60994	0.17683		
Corrected Total	61	20.18180			

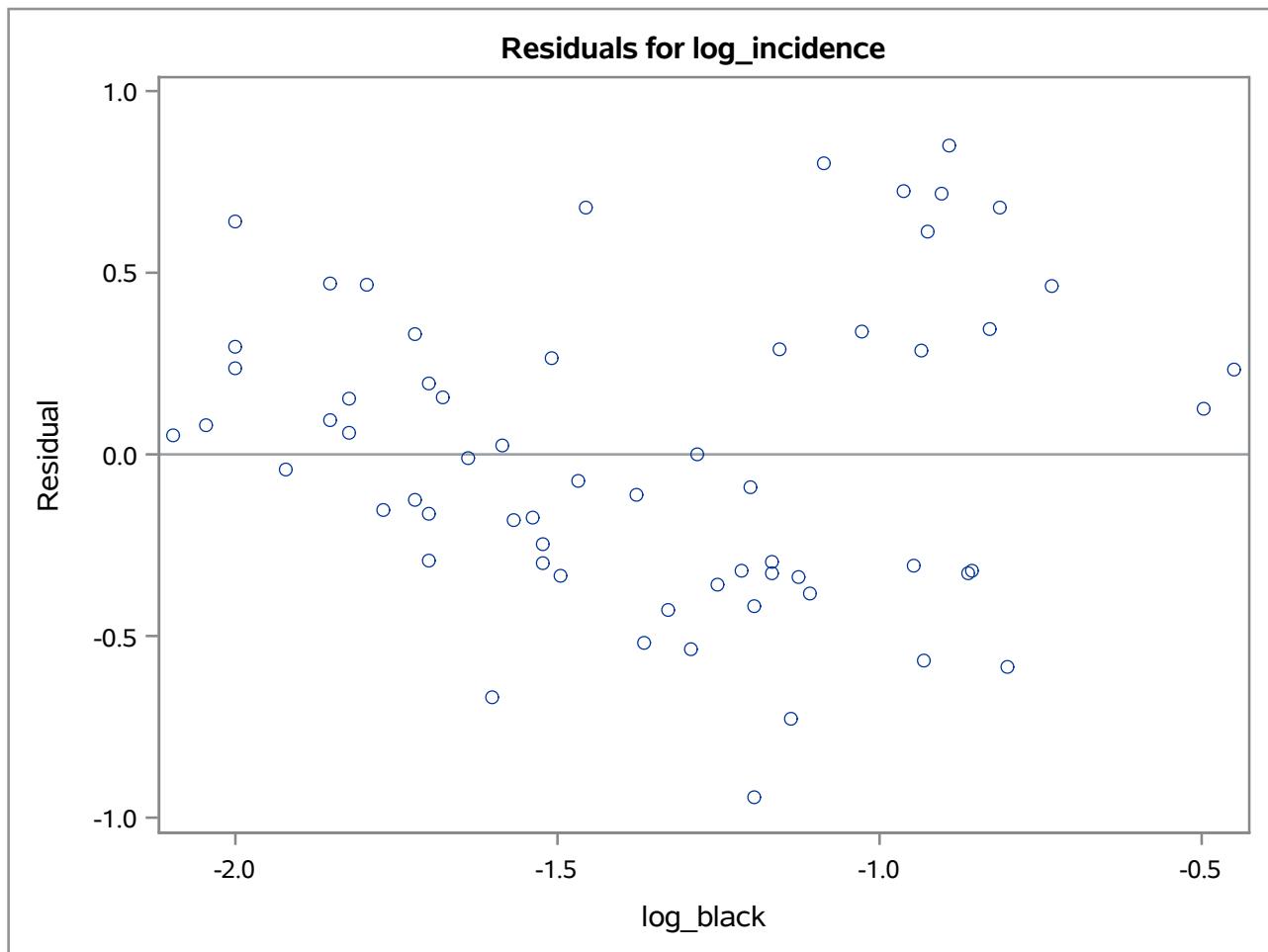
Root MSE	0.42051	R-Square	0.4743
Dependent Mean	-2.80241	Adj R-Sq	0.4655
Coeff Var	-15.00543		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	-1.48678	0.18662	-7.97	<.0001
log_black	1	0.96966	0.13180	7.36	<.0001

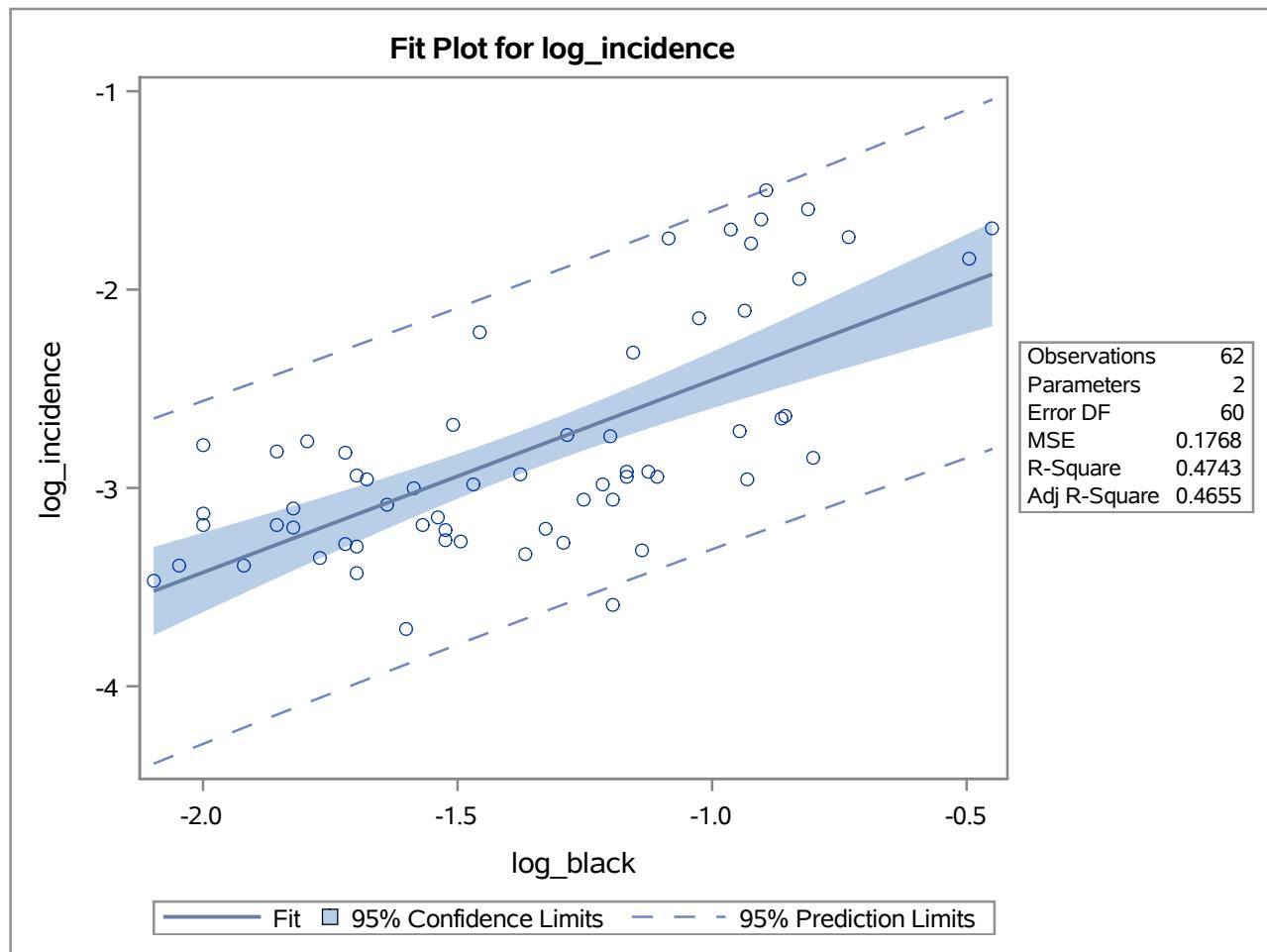
**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: log\_incidence**



The REG Procedure  
Model: MODEL1  
Dependent Variable: log\_incidence



The REG Procedure  
Model: MODEL1  
Dependent Variable: log\_incidence



**The REG Procedure**  
**Model: MODEL2**  
**Dependent Variable: log\_incidence**

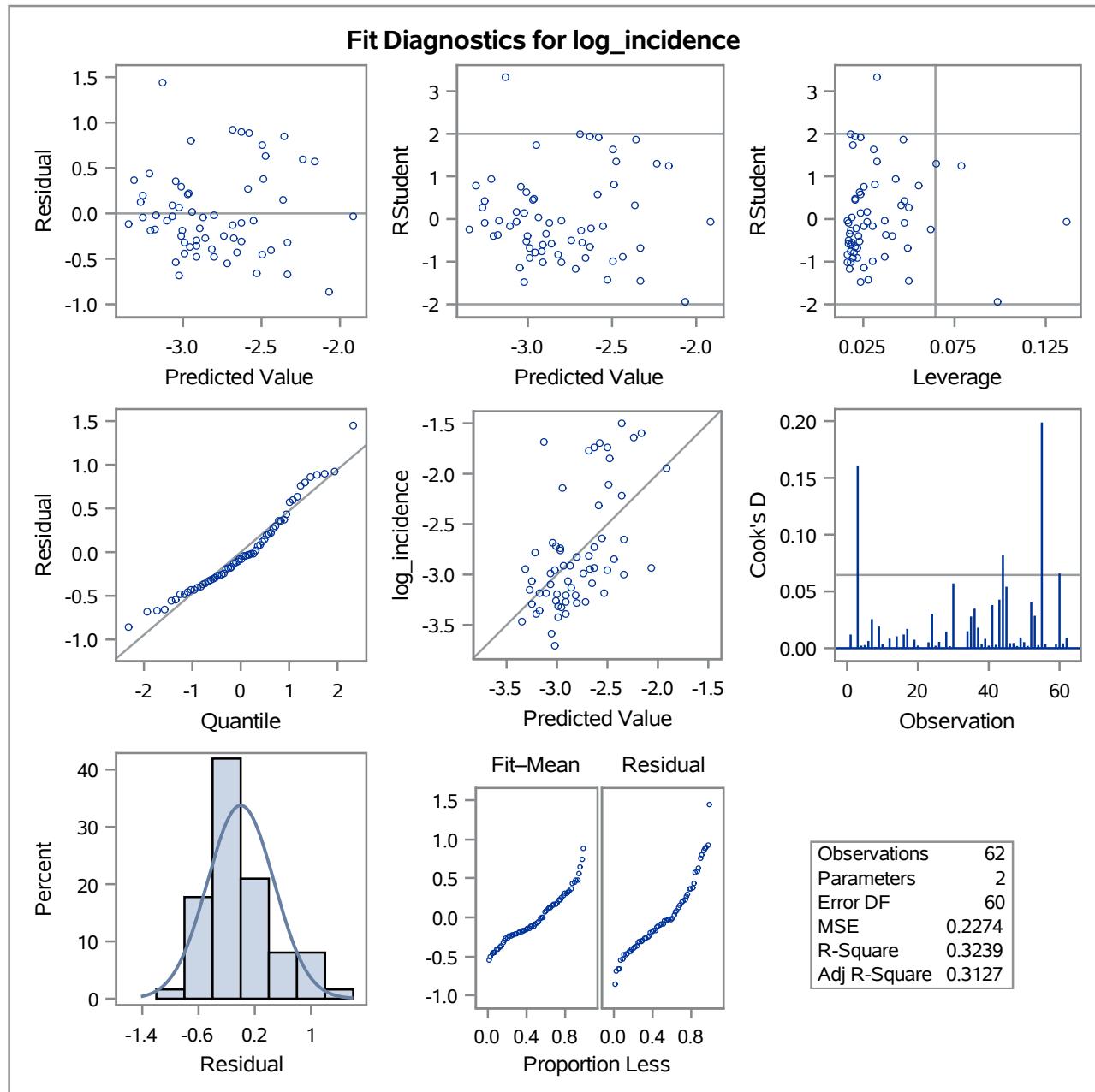
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	6.53775	6.53775	28.75	<.0001
Error	60	13.64405	0.22740		
Corrected Total	61	20.18180			

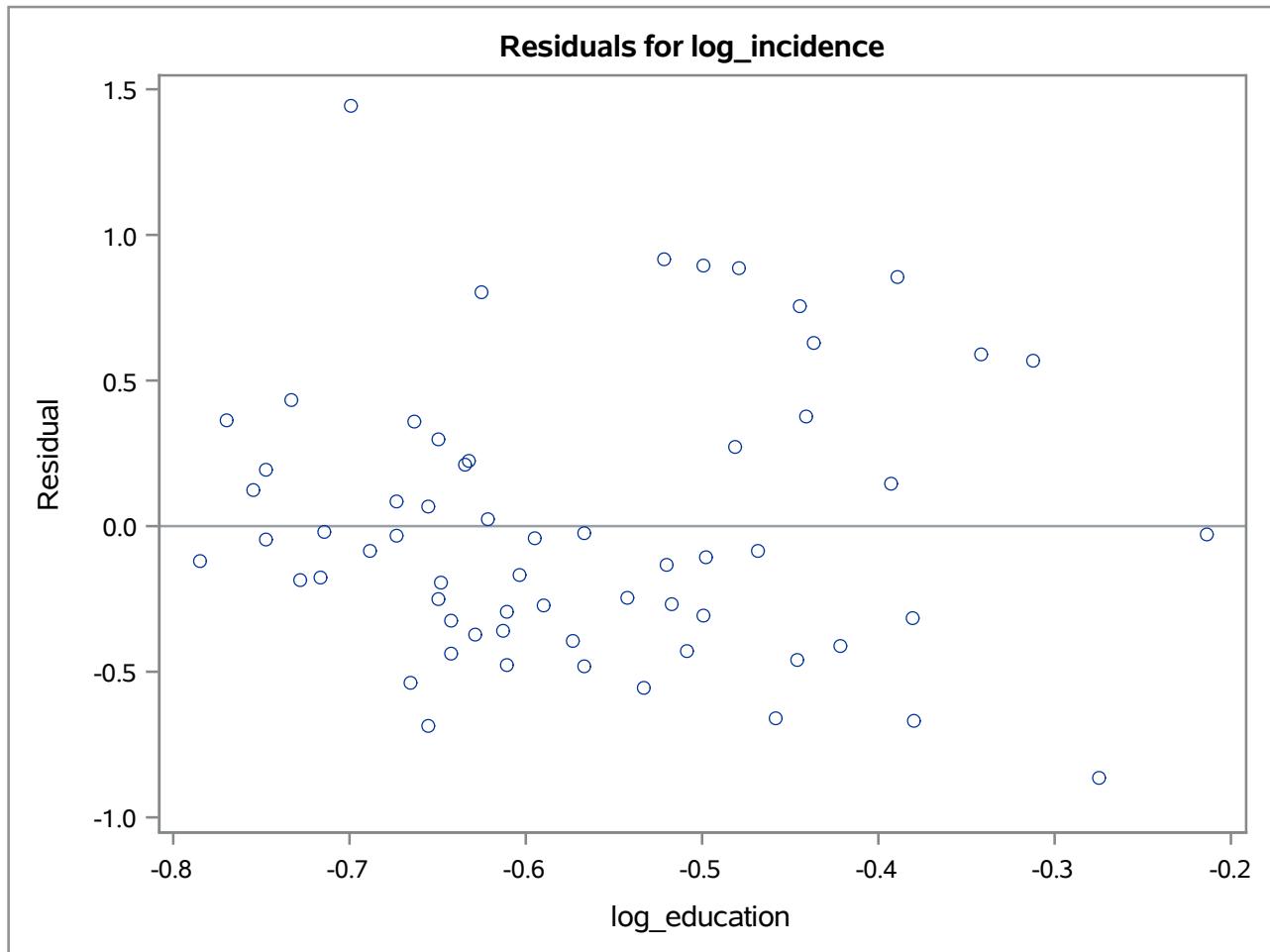
Root MSE	0.47687	R-Square	0.3239
Dependent Mean	-2.80241	Adj R-Sq	0.3127
Coeff Var	-17.01624		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	-1.37870	0.27234	-5.06	<.0001
log_education	1	2.50931	0.46799	5.36	<.0001

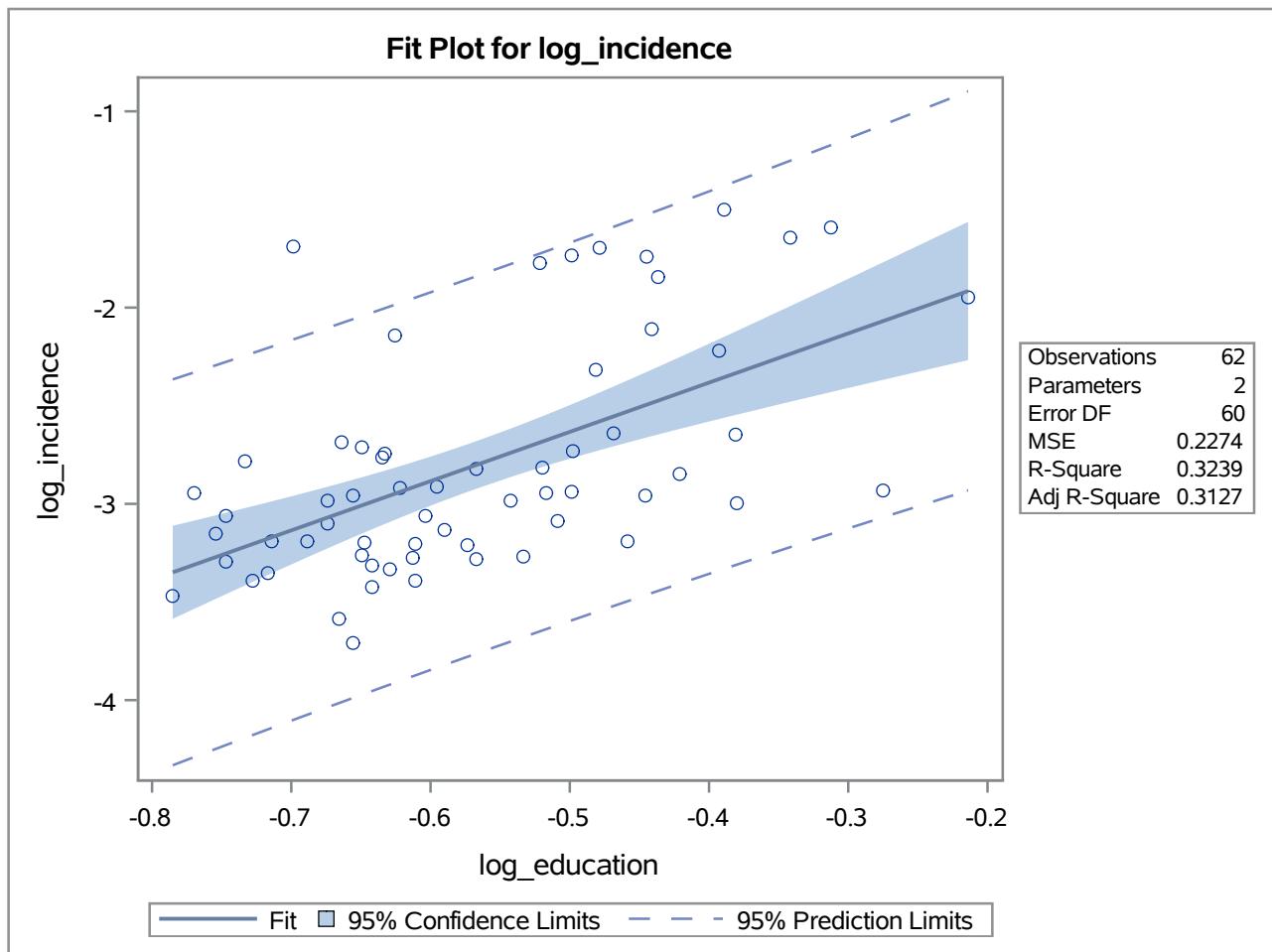
**The REG Procedure**  
**Model: MODEL2**  
**Dependent Variable: log\_incidence**



The REG Procedure  
Model: MODEL2  
Dependent Variable: log\_incidence



The REG Procedure  
Model: MODEL2  
Dependent Variable: log\_incidence



**The REG Procedure**  
**Model: MODEL3**  
**Dependent Variable: log\_incidence**

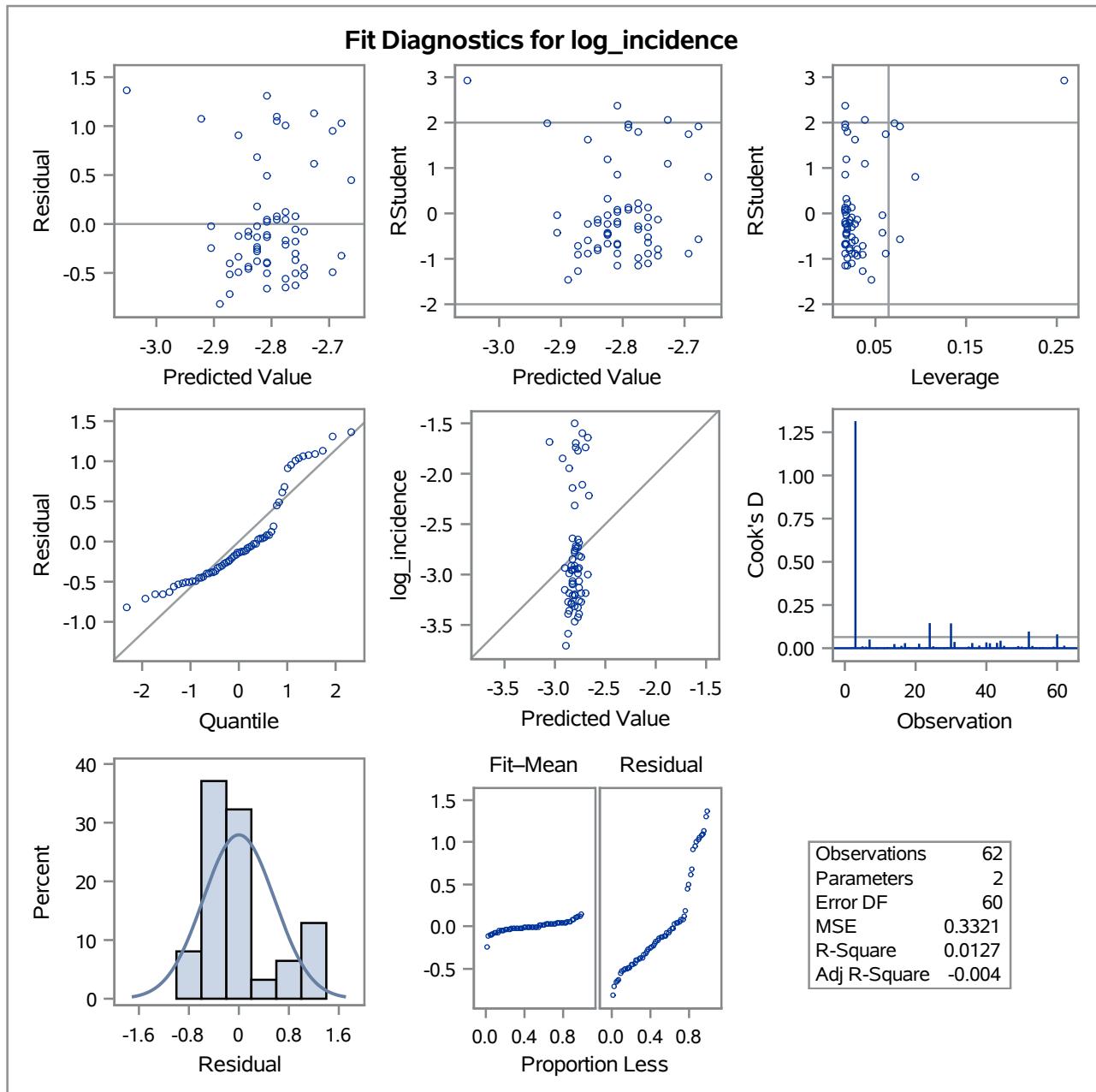
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	0.25726	0.25726	0.77	0.3823
Error	60	19.92454	0.33208		
Corrected Total	61	20.18180			

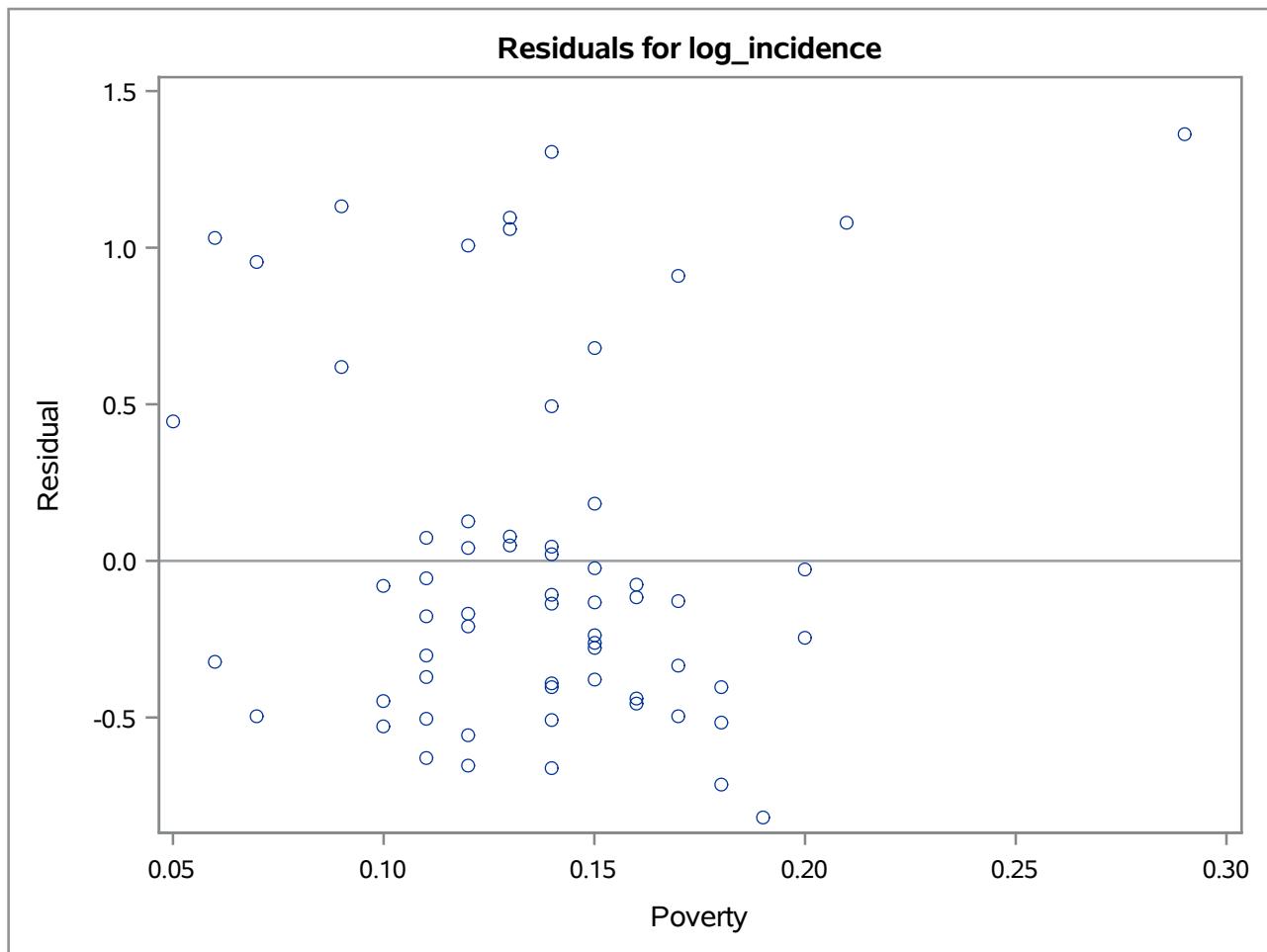
Root MSE	0.57626	R-Square	0.0127
Dependent Mean	-2.80241	Adj R-Sq	-0.0037
Coeff Var	-20.56298		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	-2.58015	0.26292	-9.81	<.0001
Poverty	1	-1.62697	1.84846	-0.88	0.3823

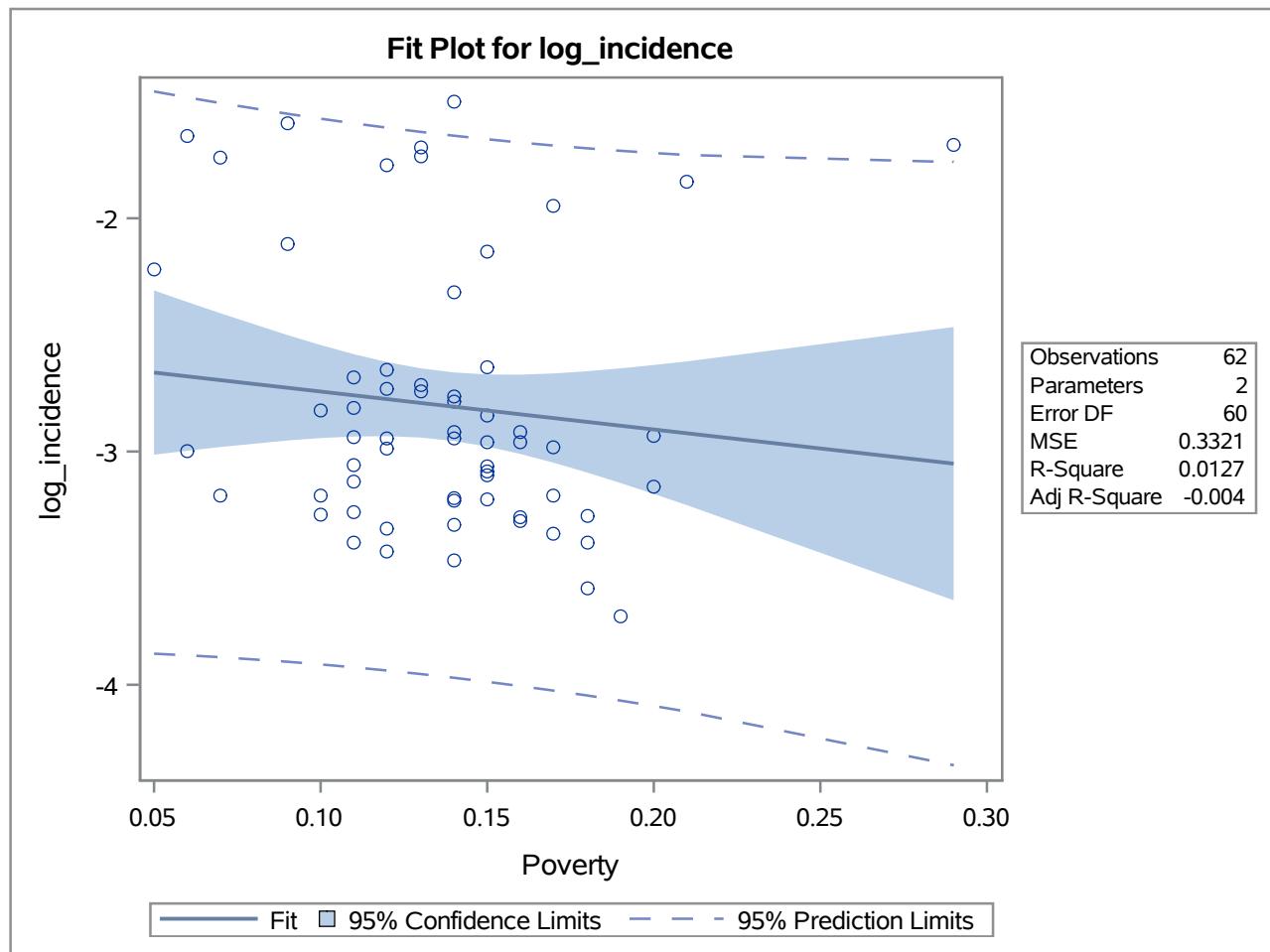
**The REG Procedure**  
**Model: MODEL3**  
**Dependent Variable: log\_incidence**



The REG Procedure  
Model: MODEL3  
Dependent Variable: log\_incidence



The REG Procedure  
Model: MODEL3  
Dependent Variable: log\_incidence



**The REG Procedure**  
**Model: MODEL4**  
**Dependent Variable: log\_incidence**

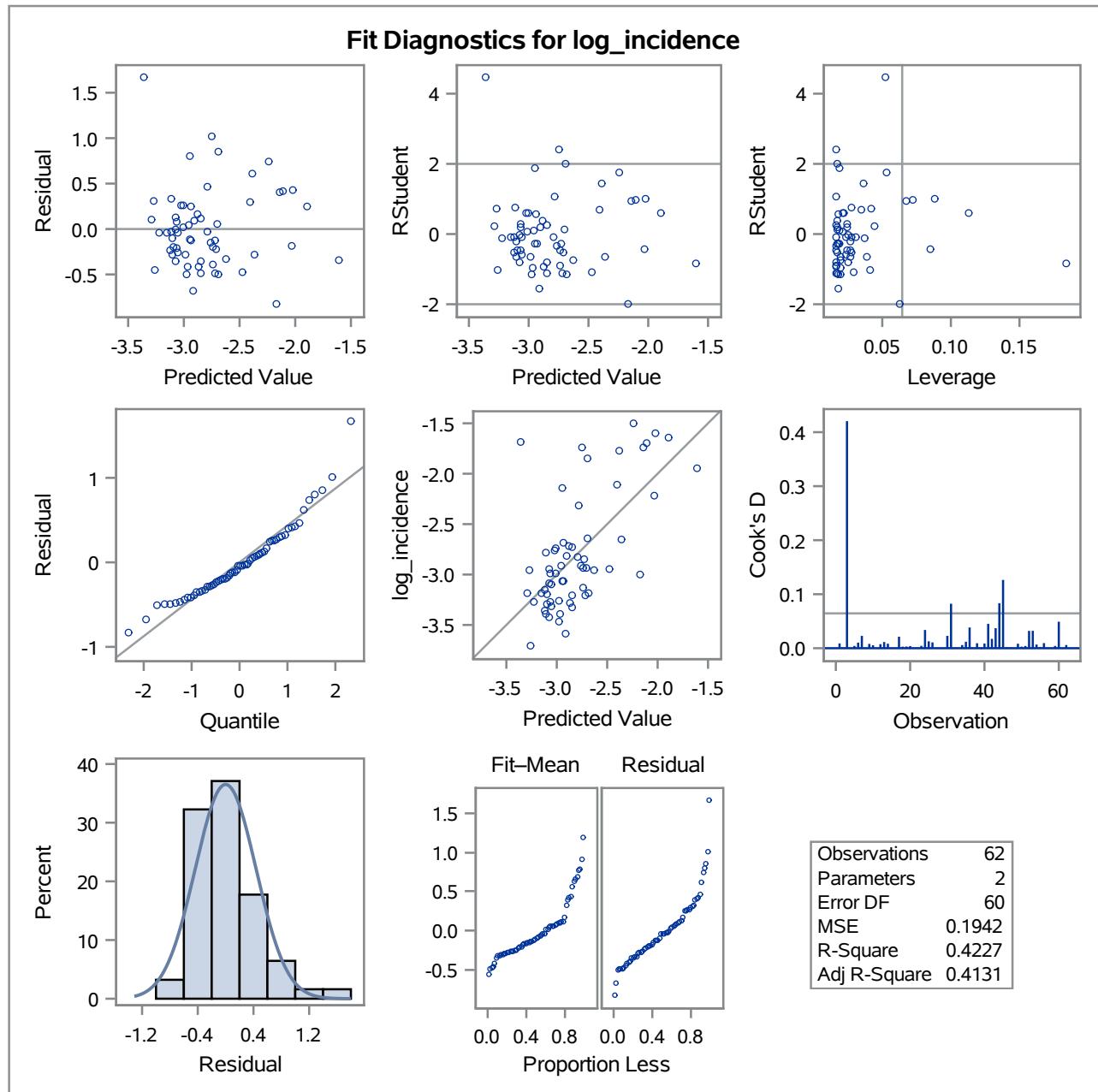
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	8.53093	8.53093	43.93	<.0001
Error	60	11.65087	0.19418		
Corrected Total	61	20.18180			

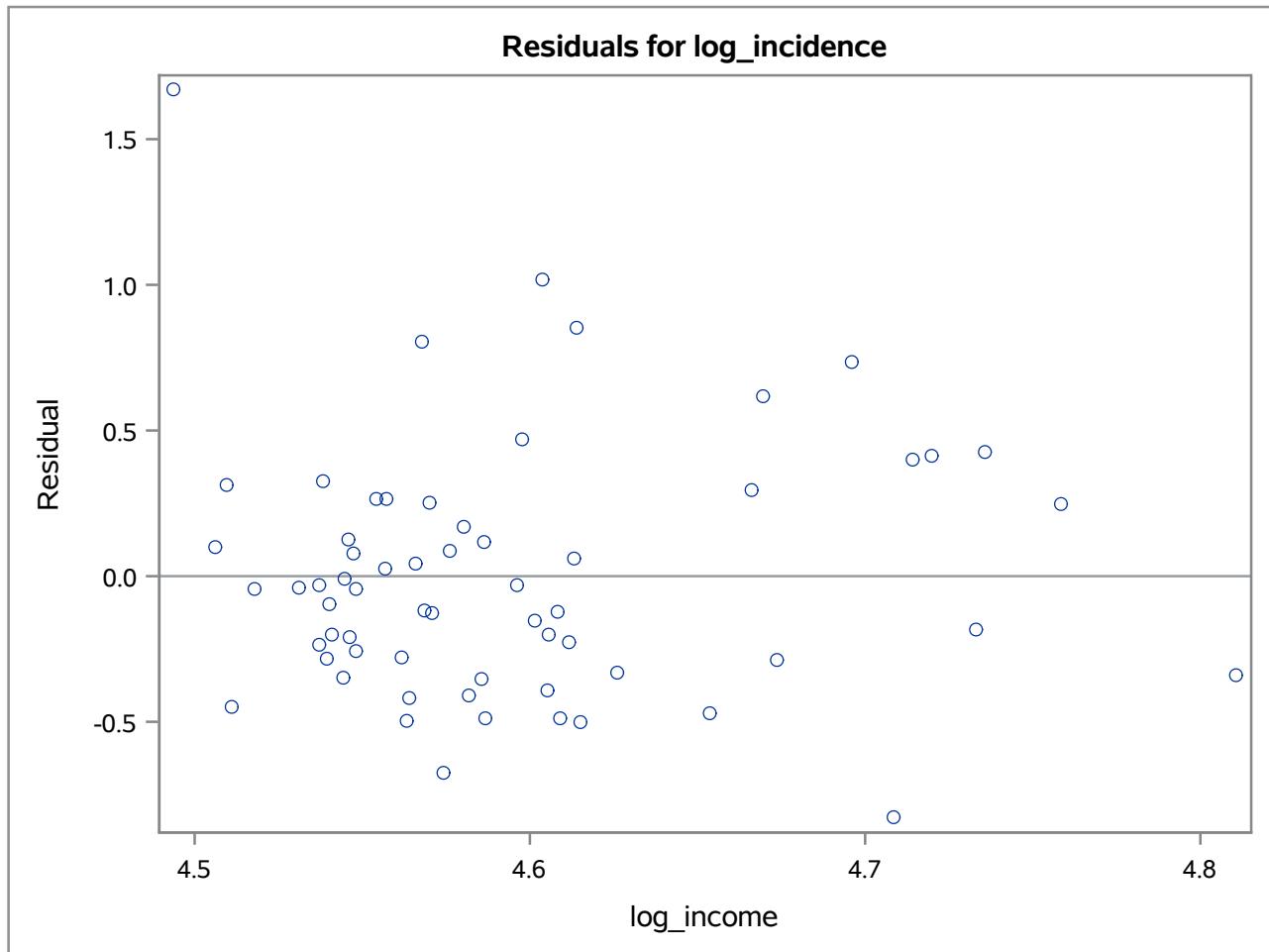
Root MSE	0.44066	R-Square	0.4227
Dependent Mean	-2.80241	Adj R-Sq	0.4131
Coeff Var	-15.72429		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	-28.22210	3.83550	-7.36	<.0001
log_income	1	5.53291	0.83476	6.63	<.0001

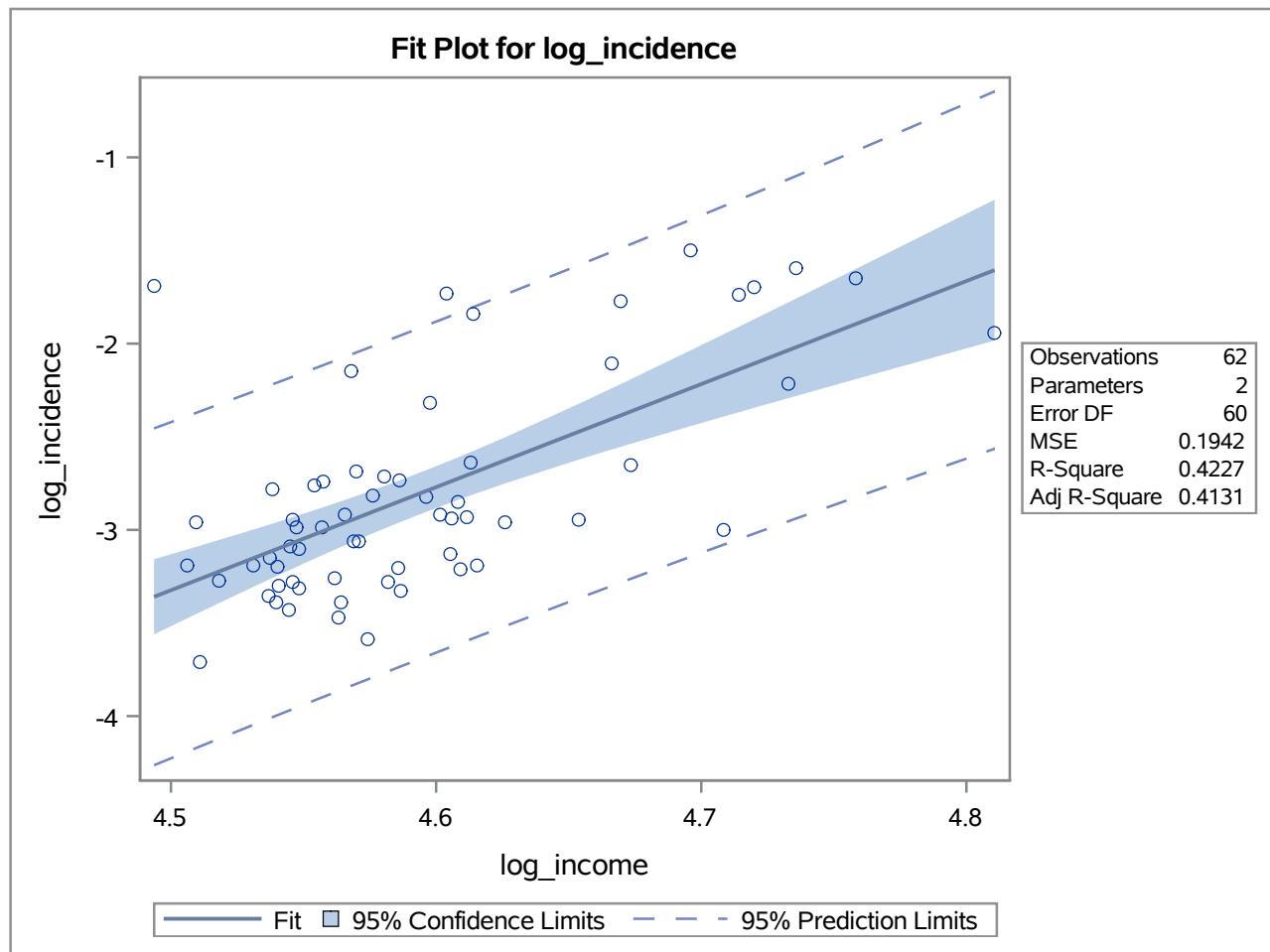
**The REG Procedure**  
**Model: MODEL4**  
**Dependent Variable: log\_incidence**



The REG Procedure  
Model: MODEL4  
Dependent Variable: log\_incidence



The REG Procedure  
Model: MODEL4  
Dependent Variable: log\_incidence



**The REG Procedure**  
**Model: MODEL5**  
**Dependent Variable: log\_incidence**

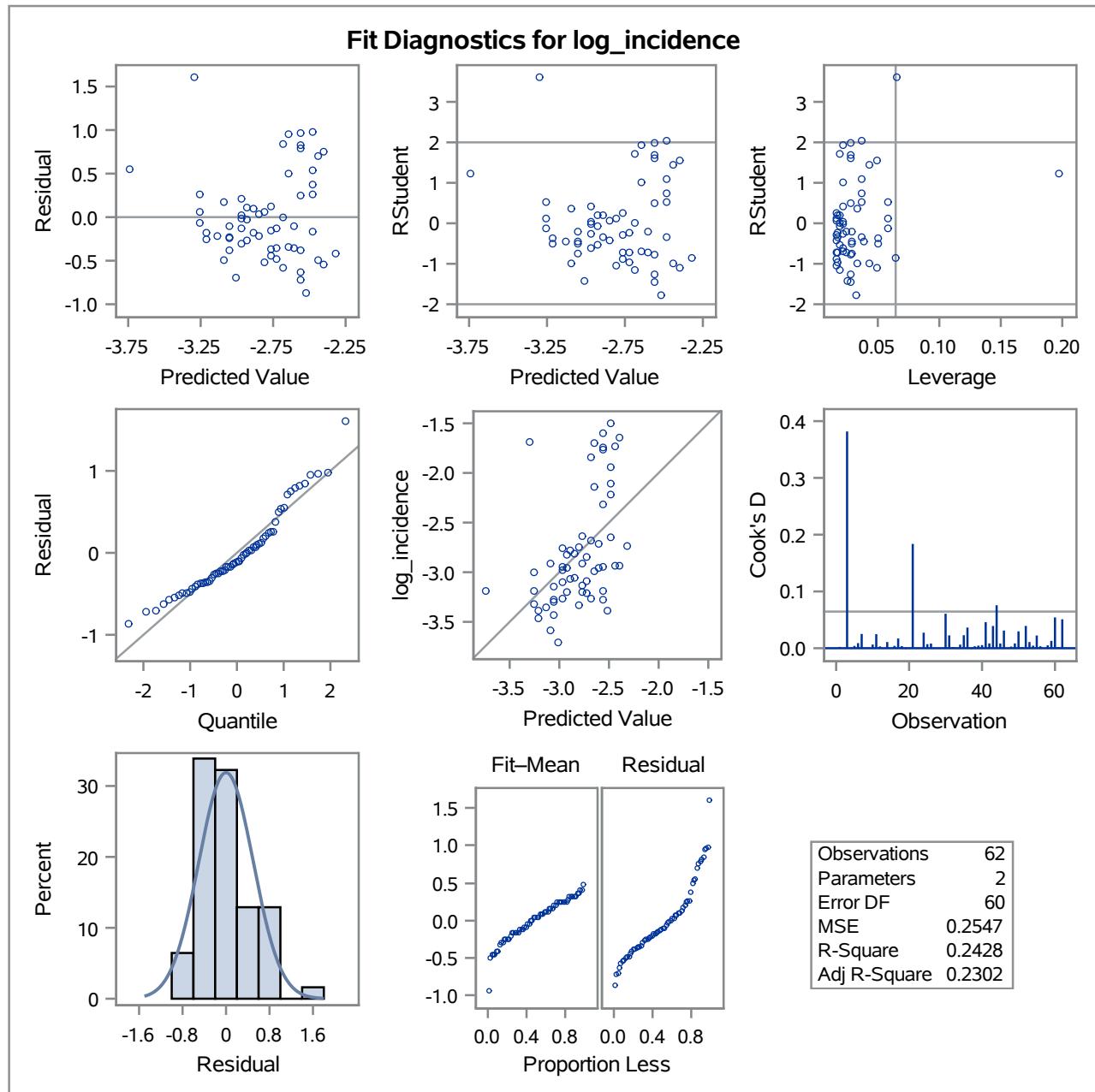
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	4.90078	4.90078	19.24	<.0001
Error	60	15.28102	0.25468		
Corrected Total	61	20.18180			

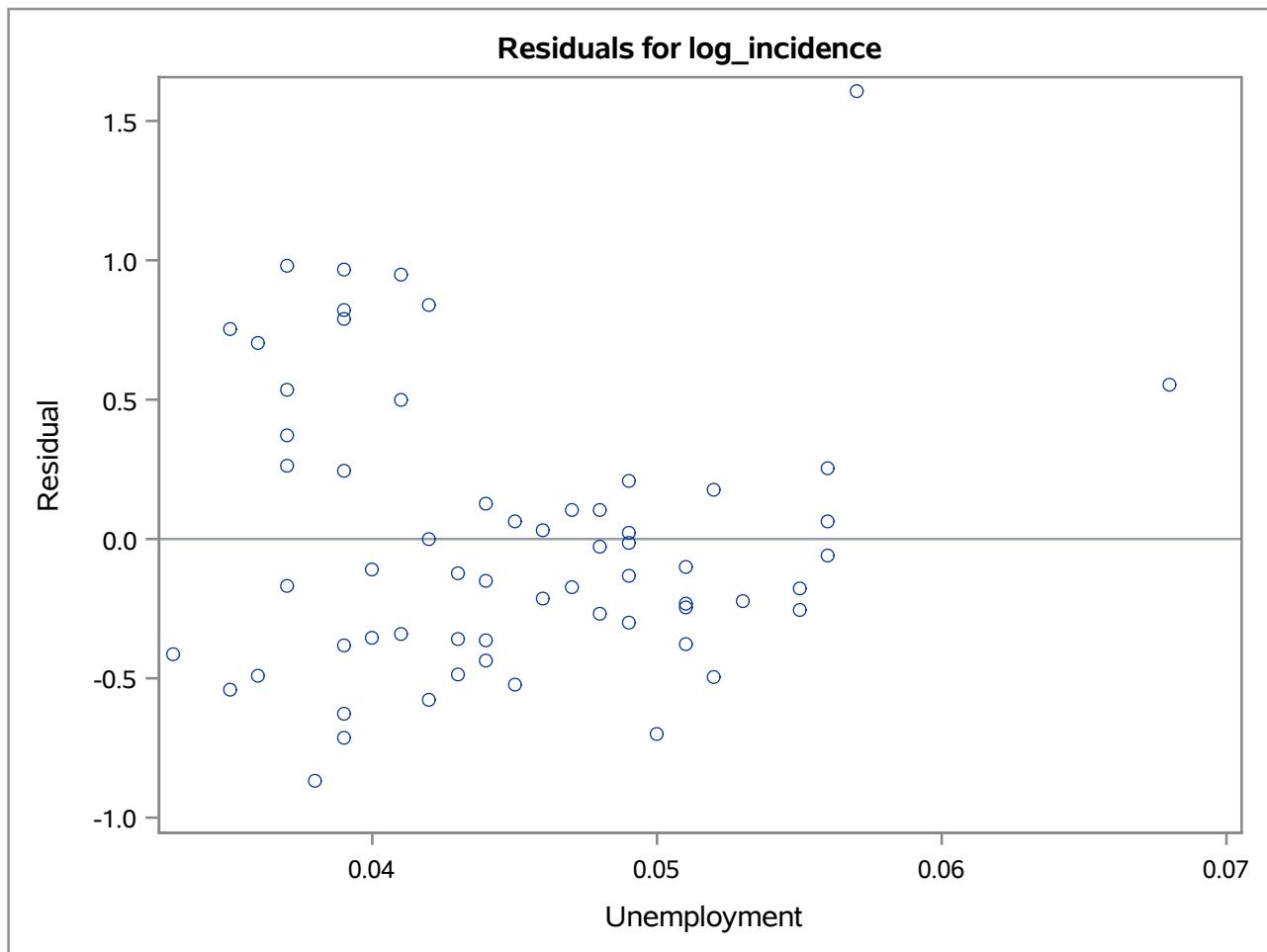
Root MSE	0.50466	R-Square	0.2428
Dependent Mean	-2.80241	Adj R-Sq	0.2302
Coeff Var	-18.00811		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	-0.97265	0.42202	-2.30	0.0247
Unemployment	1	-40.74901	9.28935	-4.39	<.0001

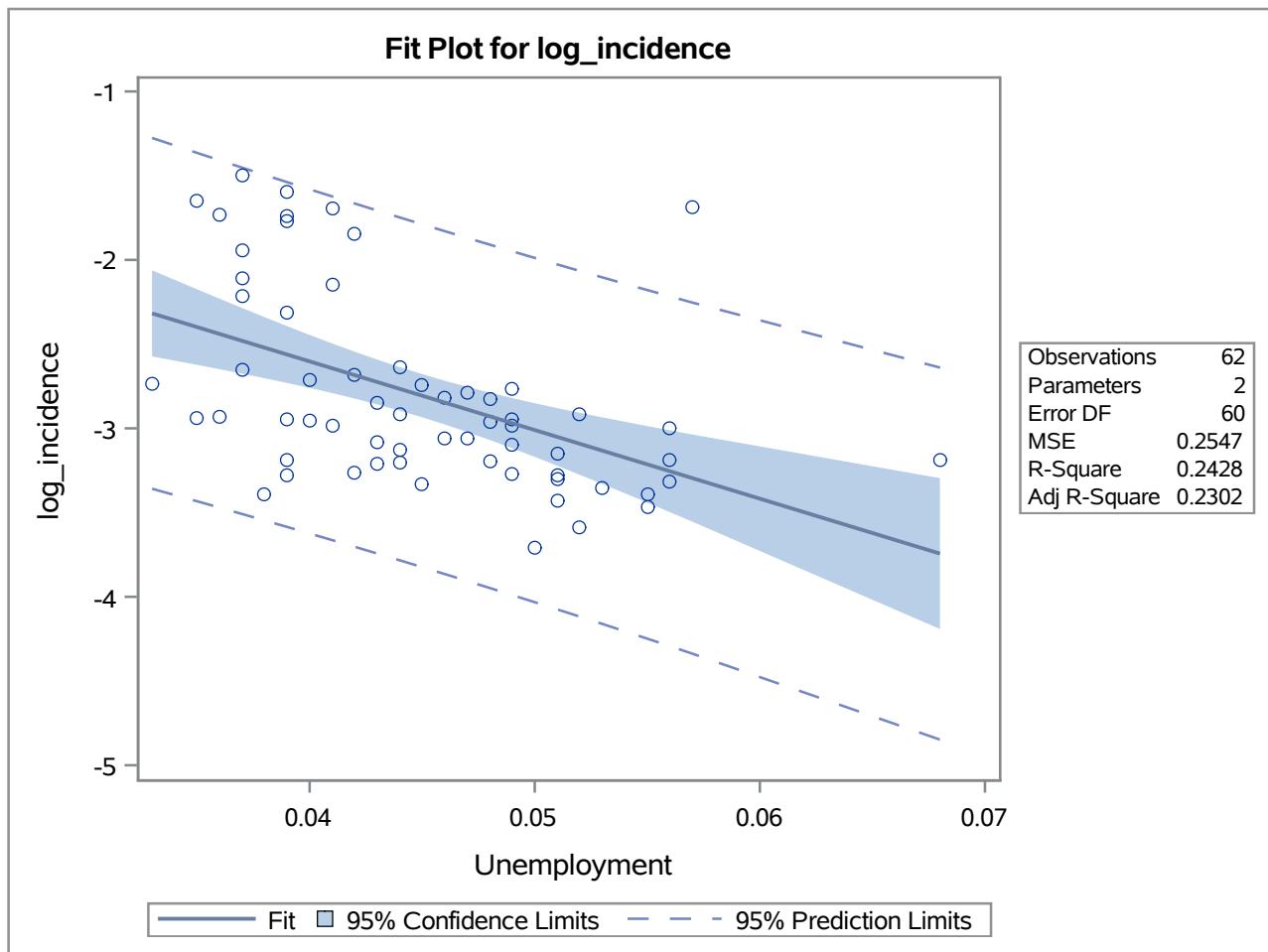
**The REG Procedure**  
**Model: MODEL5**  
**Dependent Variable: log\_incidence**



The REG Procedure  
Model: MODEL5  
Dependent Variable: log\_incidence



The REG Procedure  
Model: MODEL5  
Dependent Variable: log\_incidence



**The REG Procedure**  
**Model: MODEL6**  
**Dependent Variable: log\_incidence**

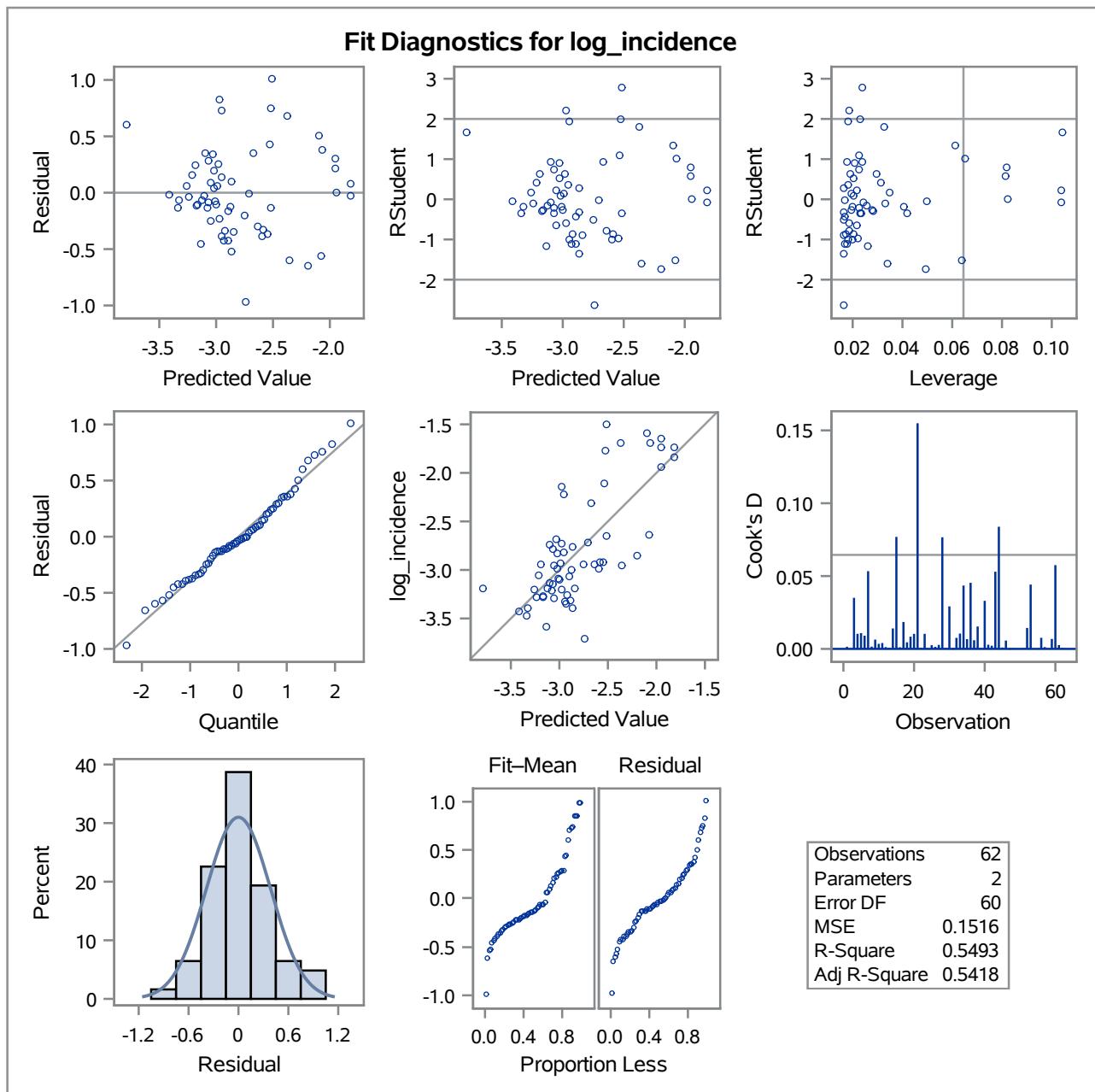
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	11.08552	11.08552	73.12	<.0001
Error	60	9.09628	0.15160		
Corrected Total	61	20.18180			

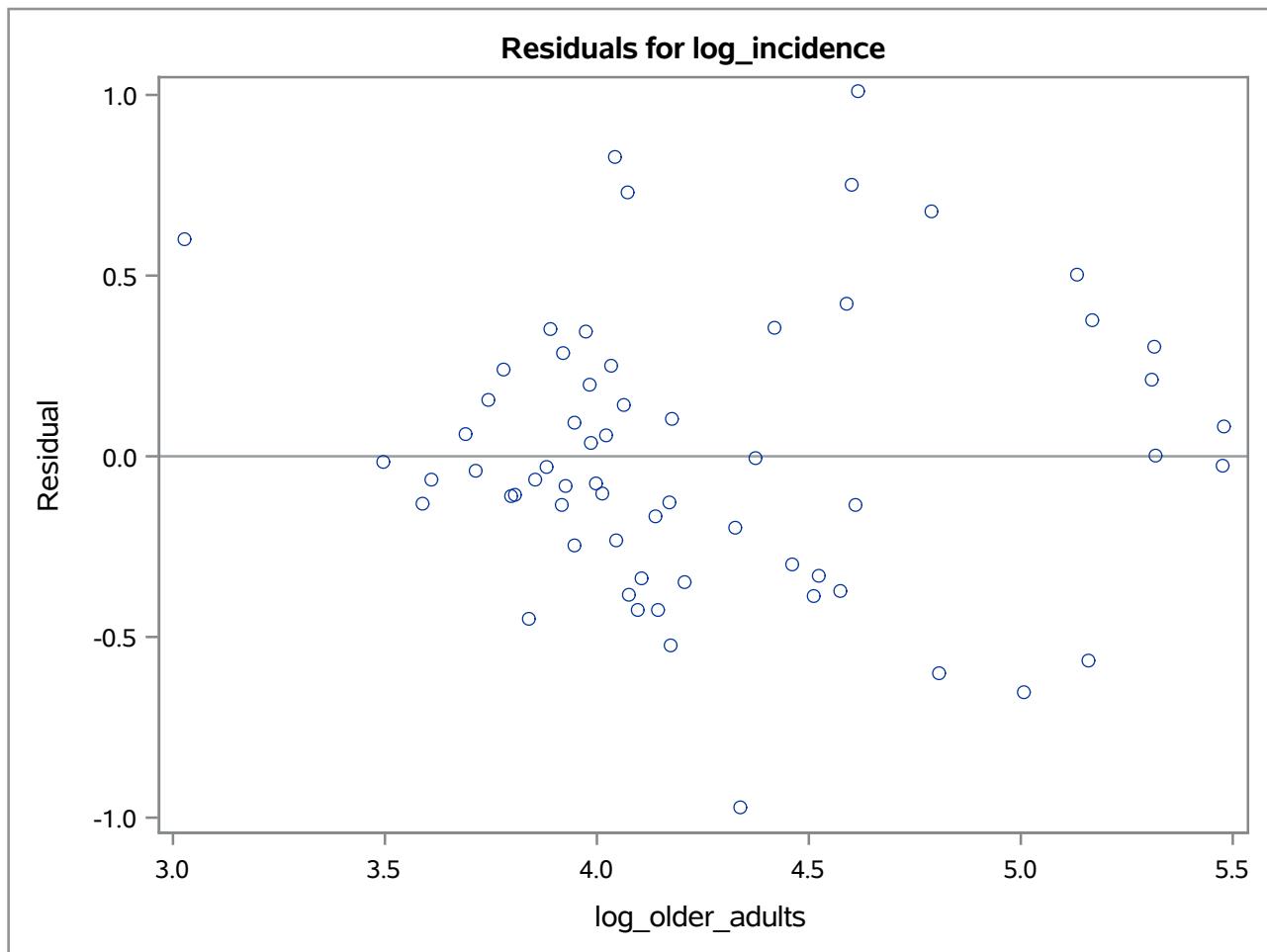
Root MSE	0.38936	R-Square	0.5493
Dependent Mean	-2.80241	Adj R-Sq	0.5418
Coeff Var	-13.89389		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	-6.23043	0.40392	-15.42	<.0001
log_older_adults	1	0.80568	0.09422	8.55	<.0001

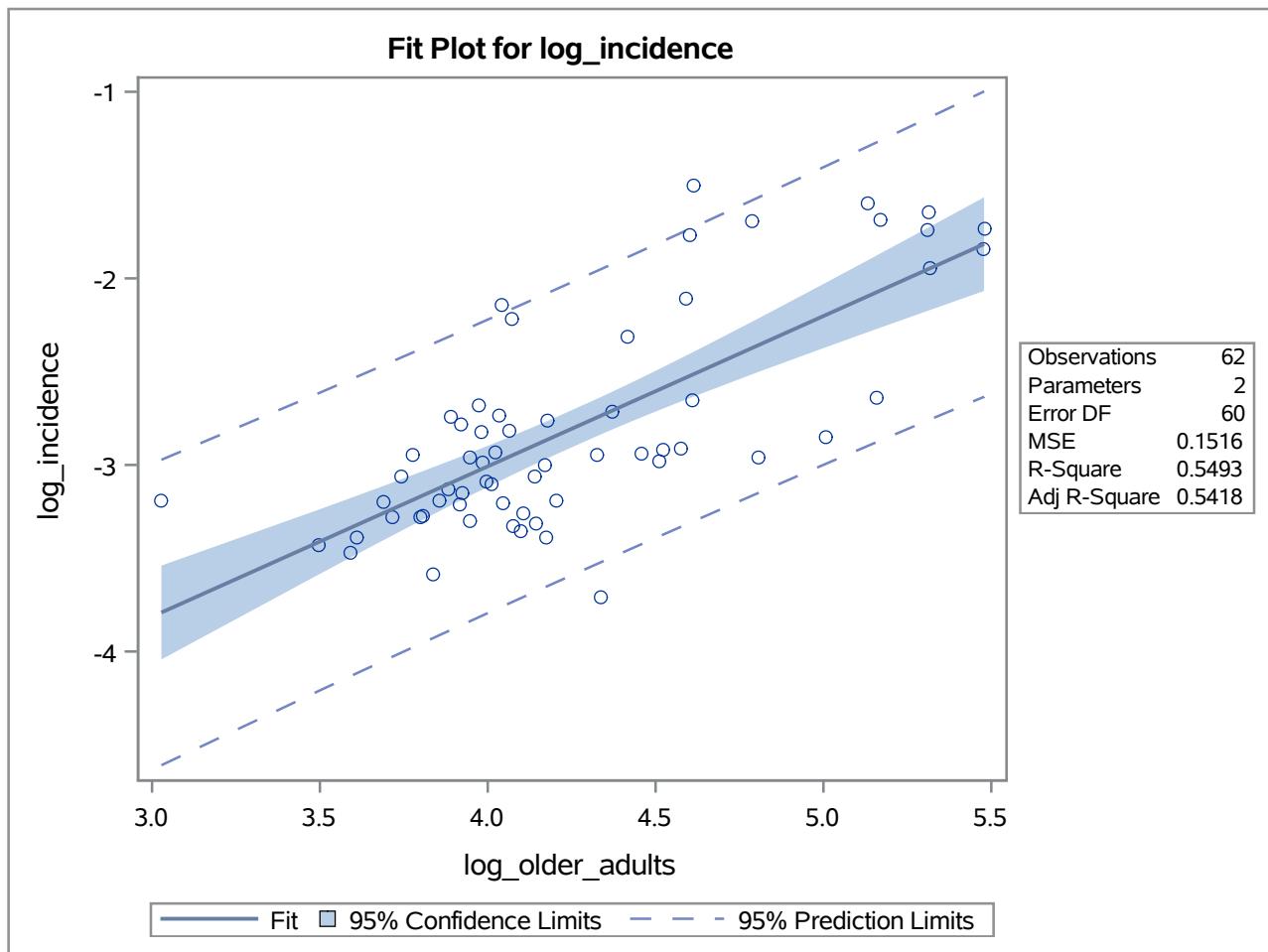
**The REG Procedure**  
**Model: MODEL6**  
**Dependent Variable: log\_incidence**



The REG Procedure  
Model: MODEL6  
Dependent Variable: log\_incidence



The REG Procedure  
Model: MODEL6  
Dependent Variable: log\_incidence



**The REG Procedure**  
**Model: MODEL7**  
**Dependent Variable: log\_incidence**

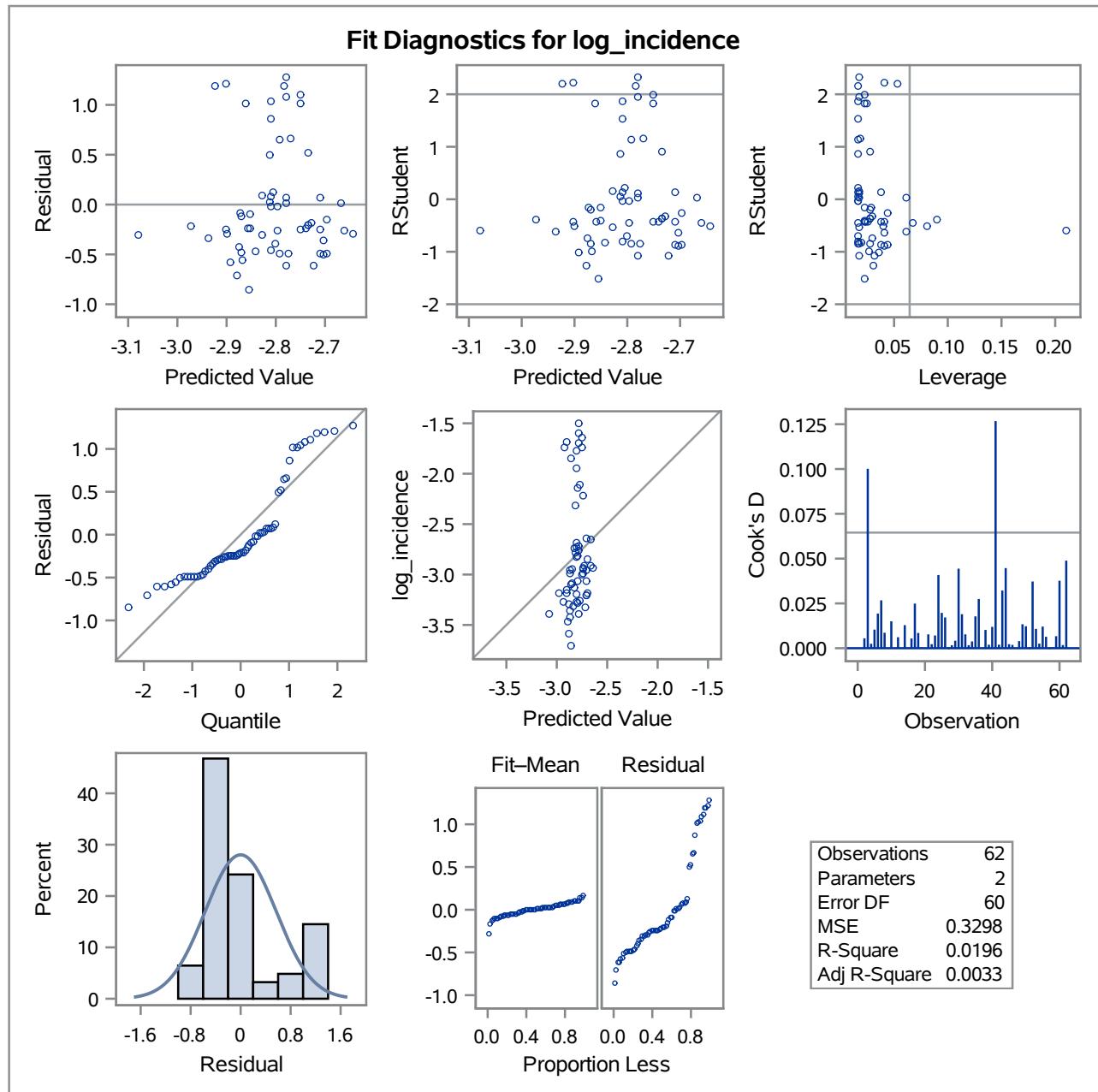
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	0.39584	0.39584	1.20	0.2776
Error	60	19.78596	0.32977		
Corrected Total	61	20.18180			

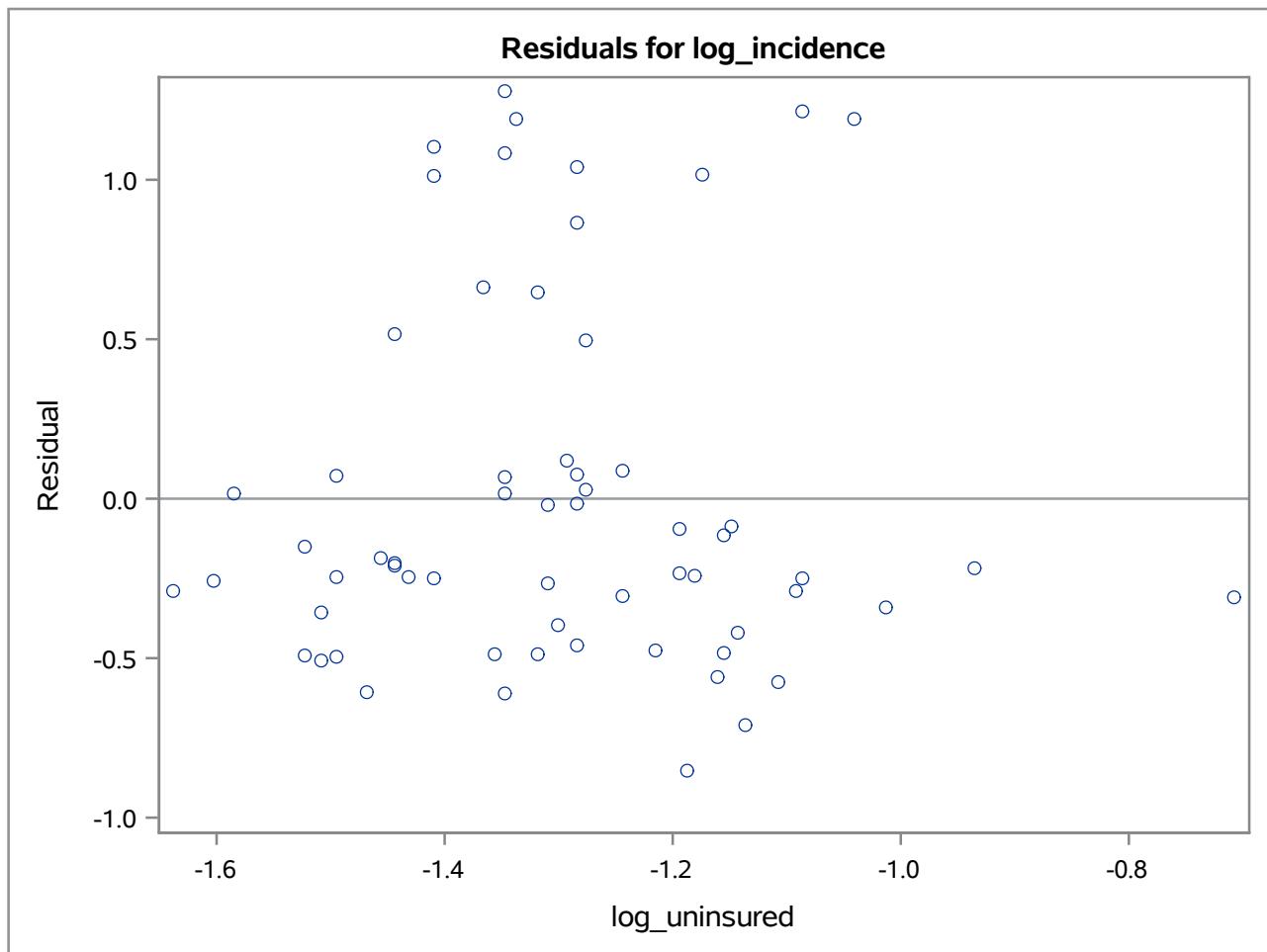
Root MSE	0.57425	R-Square	0.0196
Dependent Mean	-2.80241	Adj R-Sq	0.0033
Coeff Var	-20.49135		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	-3.41174	0.56091	-6.08	<.0001
log_uninsured	1	-0.46927	0.42832	-1.10	0.2776

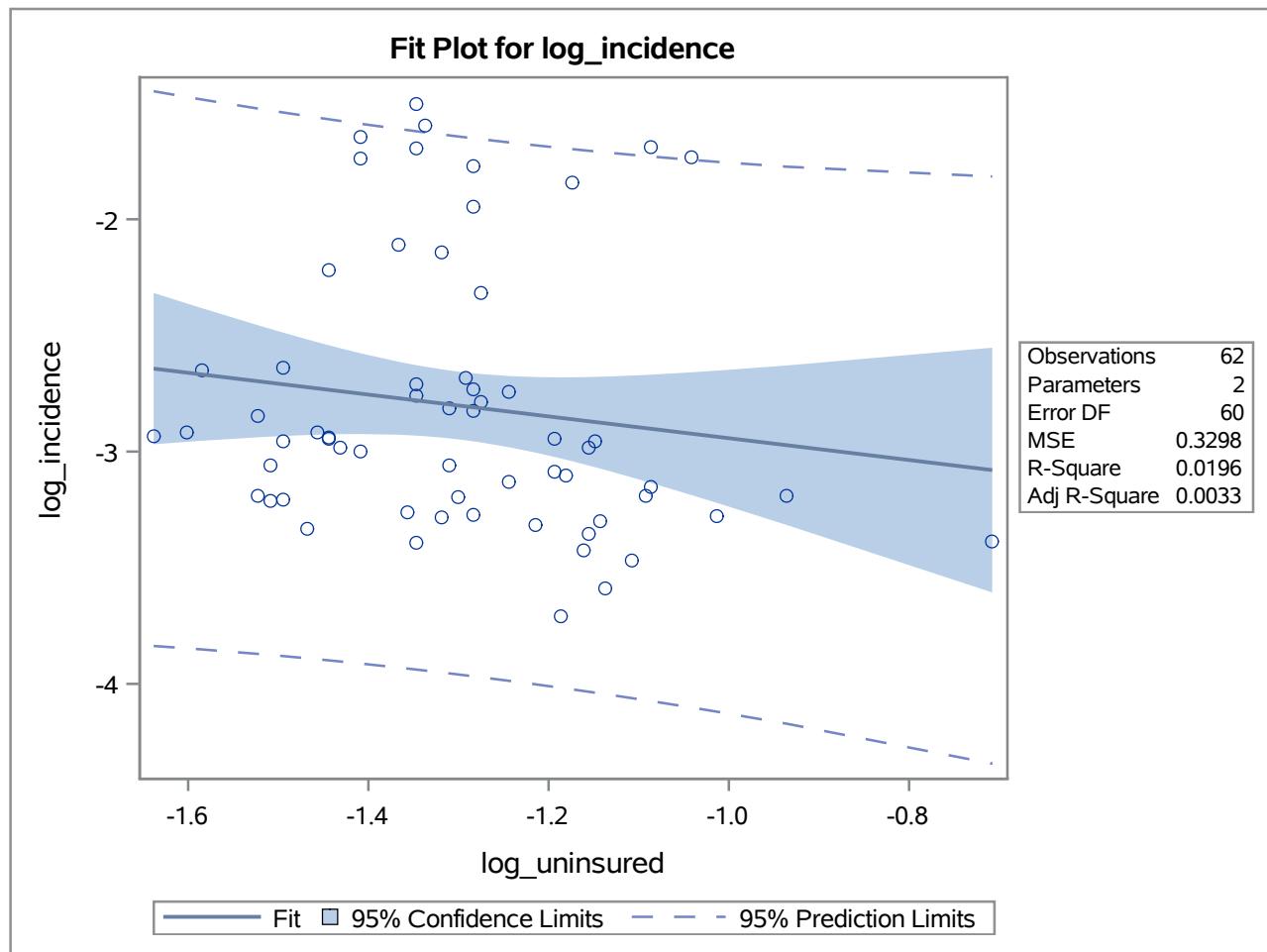
**The REG Procedure**  
**Model: MODEL7**  
**Dependent Variable: log\_incidence**



The REG Procedure  
Model: MODEL7  
Dependent Variable: log\_incidence



The REG Procedure  
Model: MODEL7  
Dependent Variable: log\_incidence



**The REG Procedure**  
**Model: MODEL8**  
**Dependent Variable: log\_incidence**

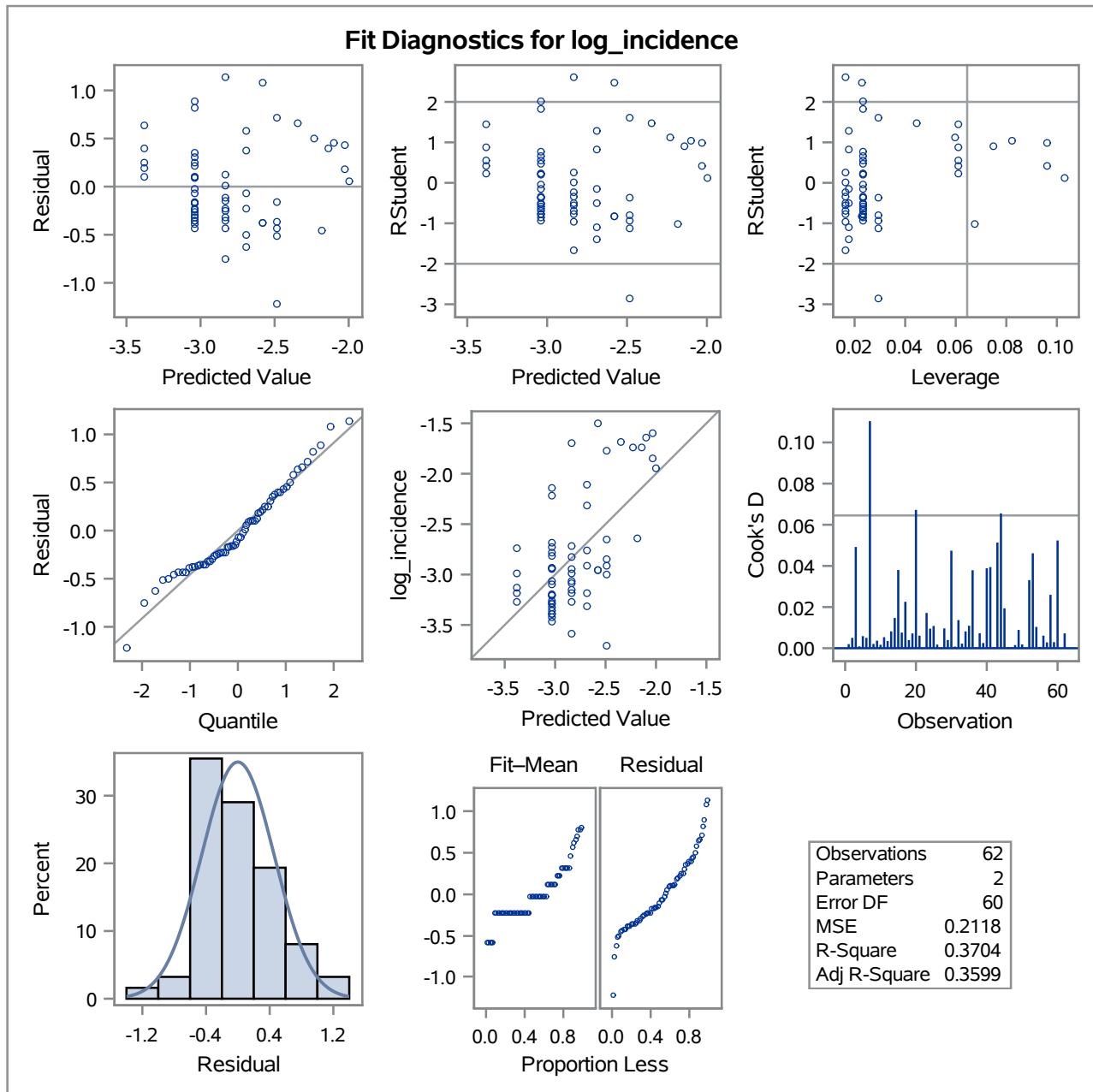
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	7.47614	7.47614	35.30	<.0001
Error	60	12.70566	0.21176		
Corrected Total	61	20.18180			

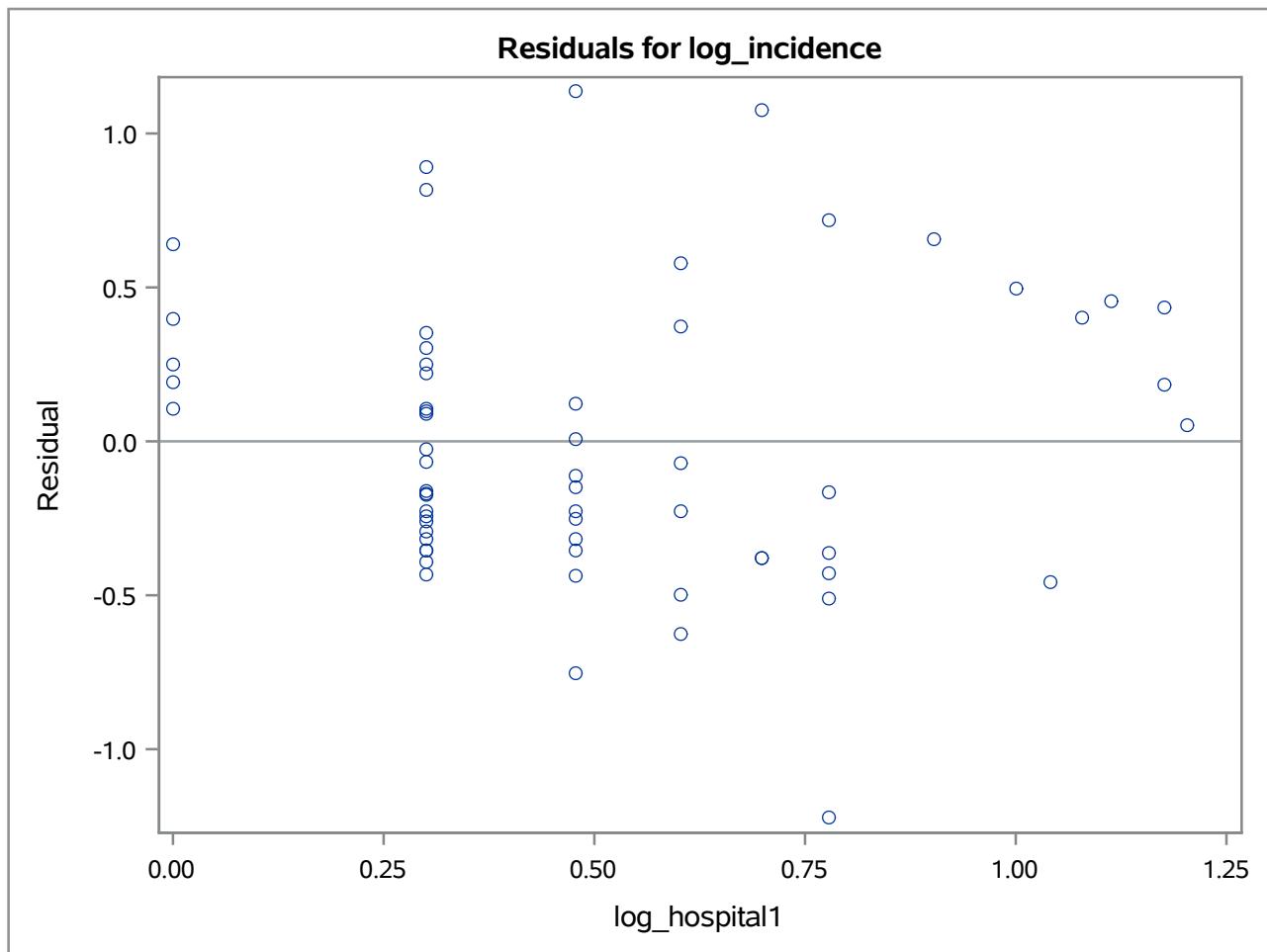
Root MSE	0.46017	R-Square	0.3704
Dependent Mean	-2.80241	Adj R-Sq	0.3599
Coeff Var	-16.42066		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	-3.38267	0.11381	-29.72	<.0001
log_hospital1	1	1.15145	0.19379	5.94	<.0001

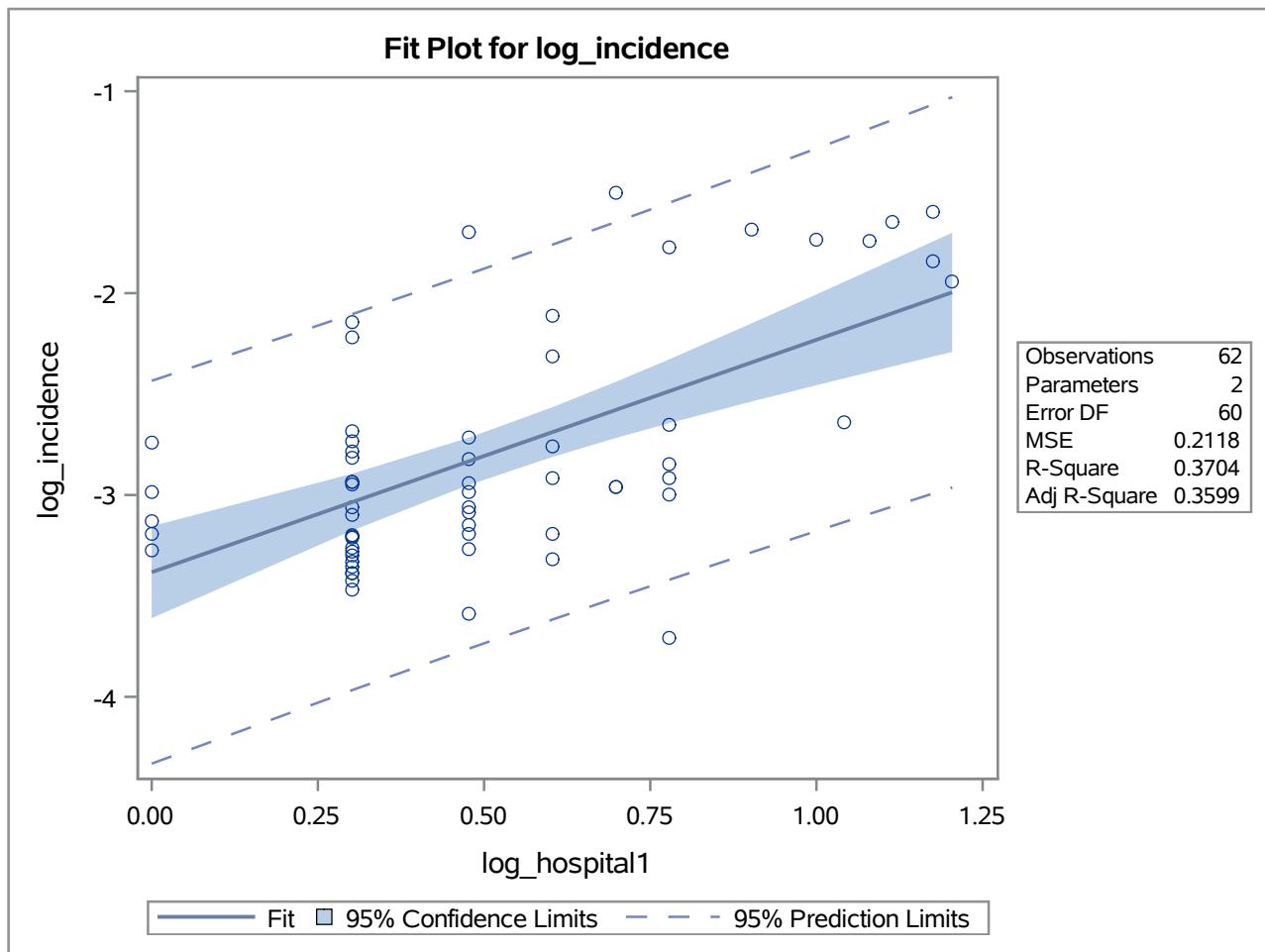
**The REG Procedure**  
**Model: MODEL8**  
**Dependent Variable: log\_incidence**



The REG Procedure  
Model: MODEL8  
Dependent Variable: log\_incidence



The REG Procedure  
Model: MODEL8  
Dependent Variable: log\_incidence



**The REG Procedure**  
**Model: MODEL9**  
**Dependent Variable: log\_incidence**

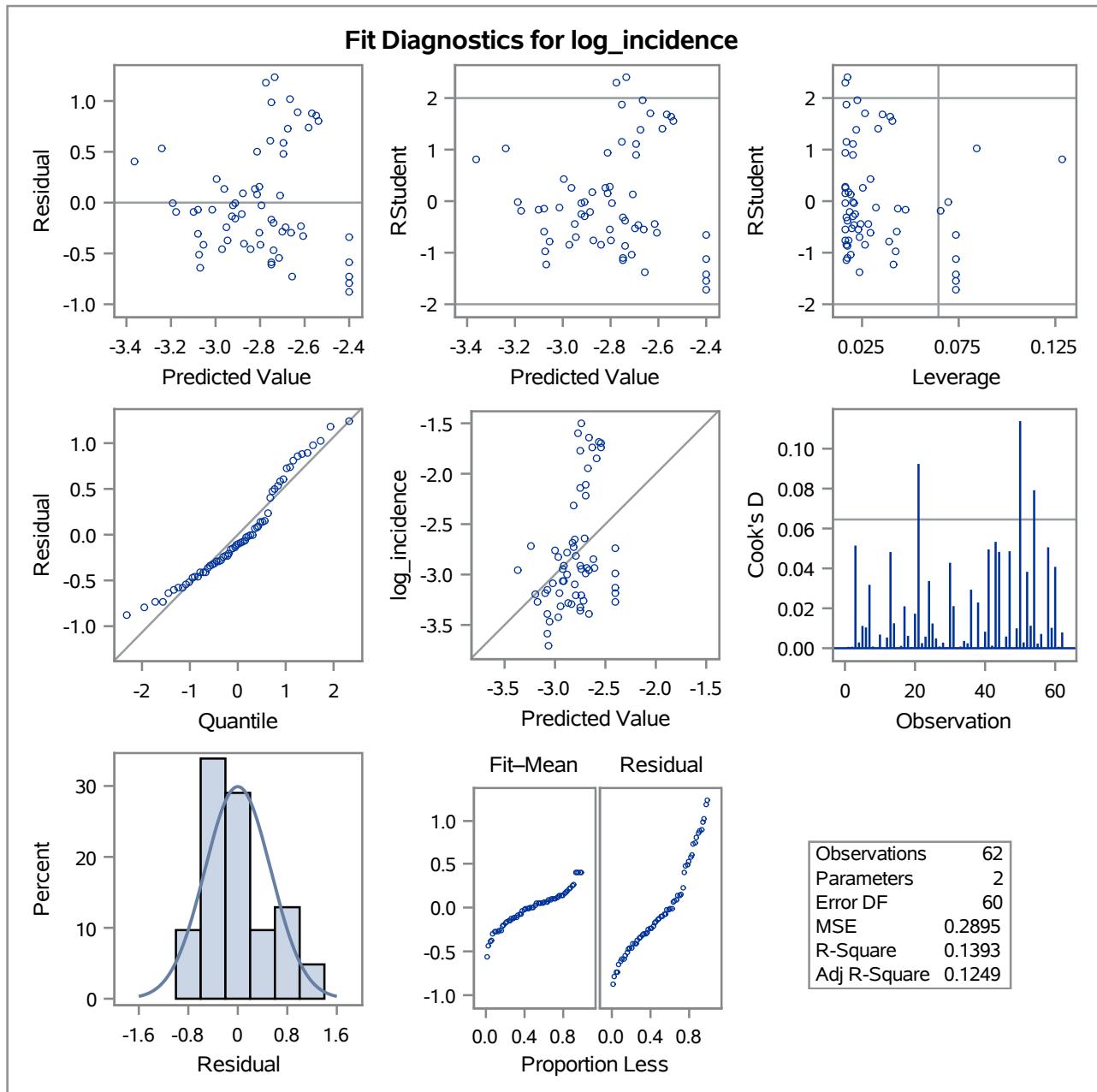
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	2.81047	2.81047	9.71	0.0028
Error	60	17.37133	0.28952		
Corrected Total	61	20.18180			

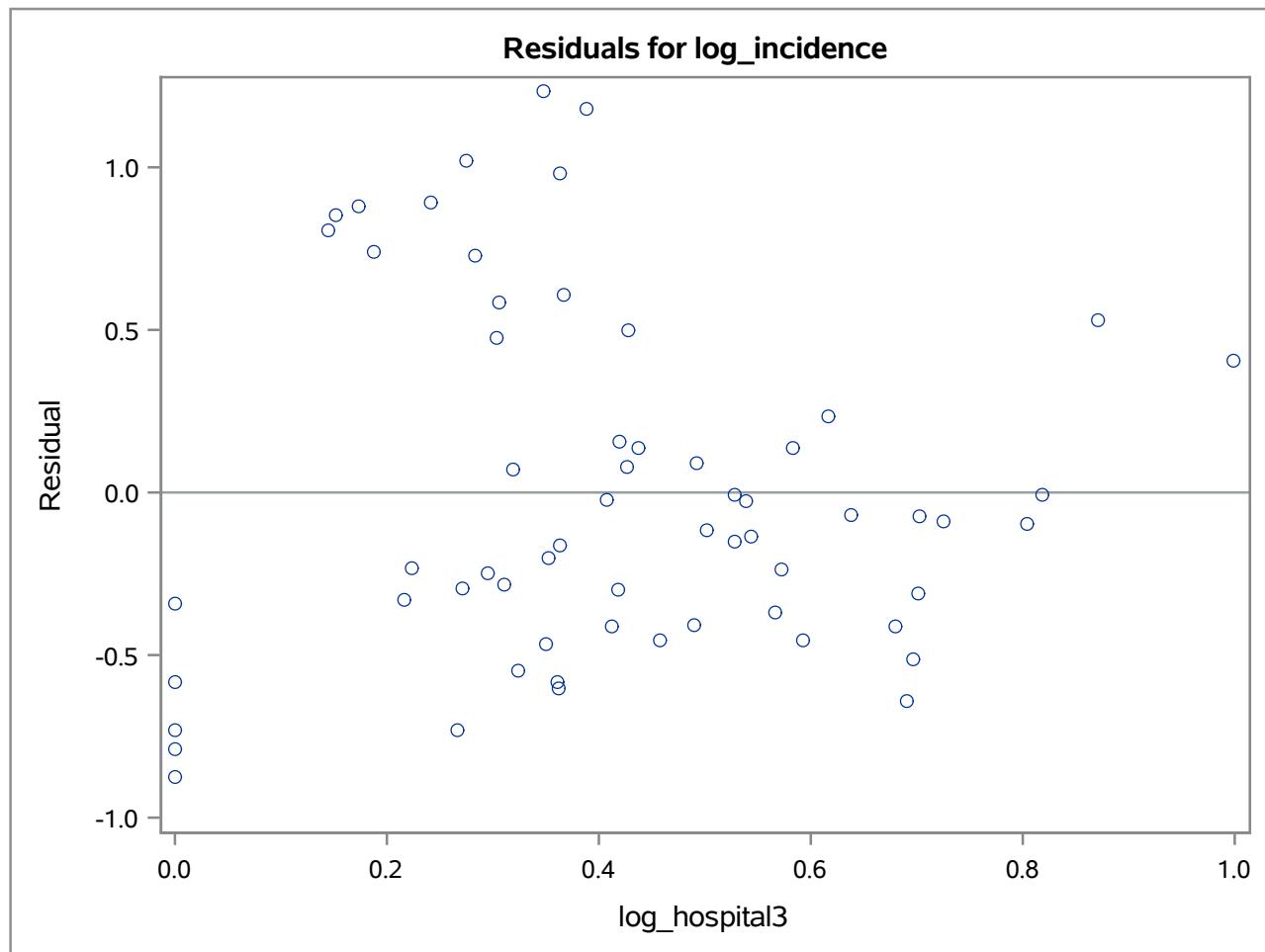
Root MSE	0.53807	R-Square	0.1393
Dependent Mean	-2.80241	Adj R-Sq	0.1249
Coeff Var	-19.20032		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	-2.40041	0.14601	-16.44	<.0001
log_hospital3	1	-0.96478	0.30966	-3.12	0.0028

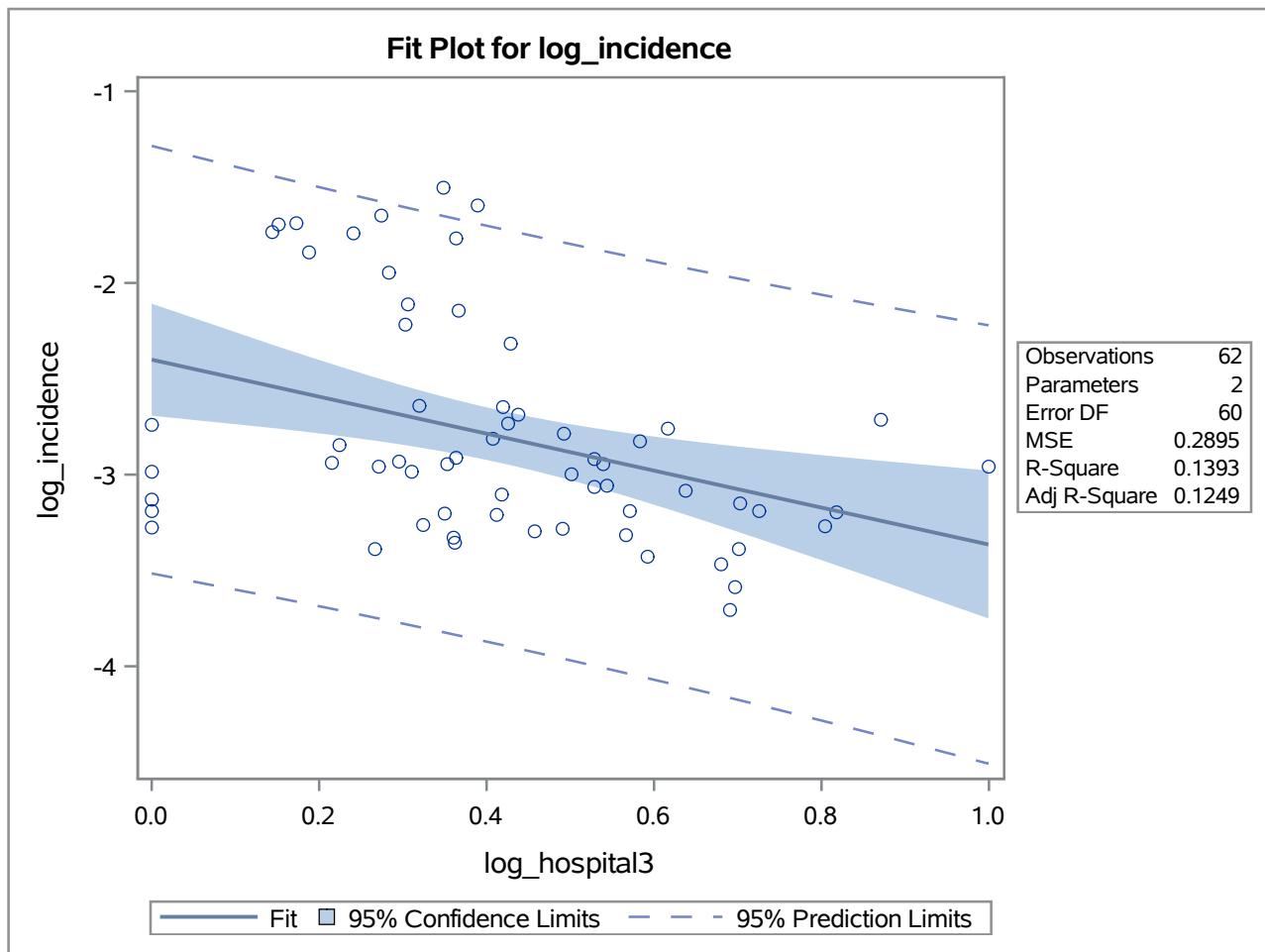
**The REG Procedure**  
**Model: MODEL9**  
**Dependent Variable: log\_incidence**



The REG Procedure  
Model: MODEL9  
Dependent Variable: log\_incidence



The REG Procedure  
Model: MODEL9  
Dependent Variable: log\_incidence



**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: log\_incidence**

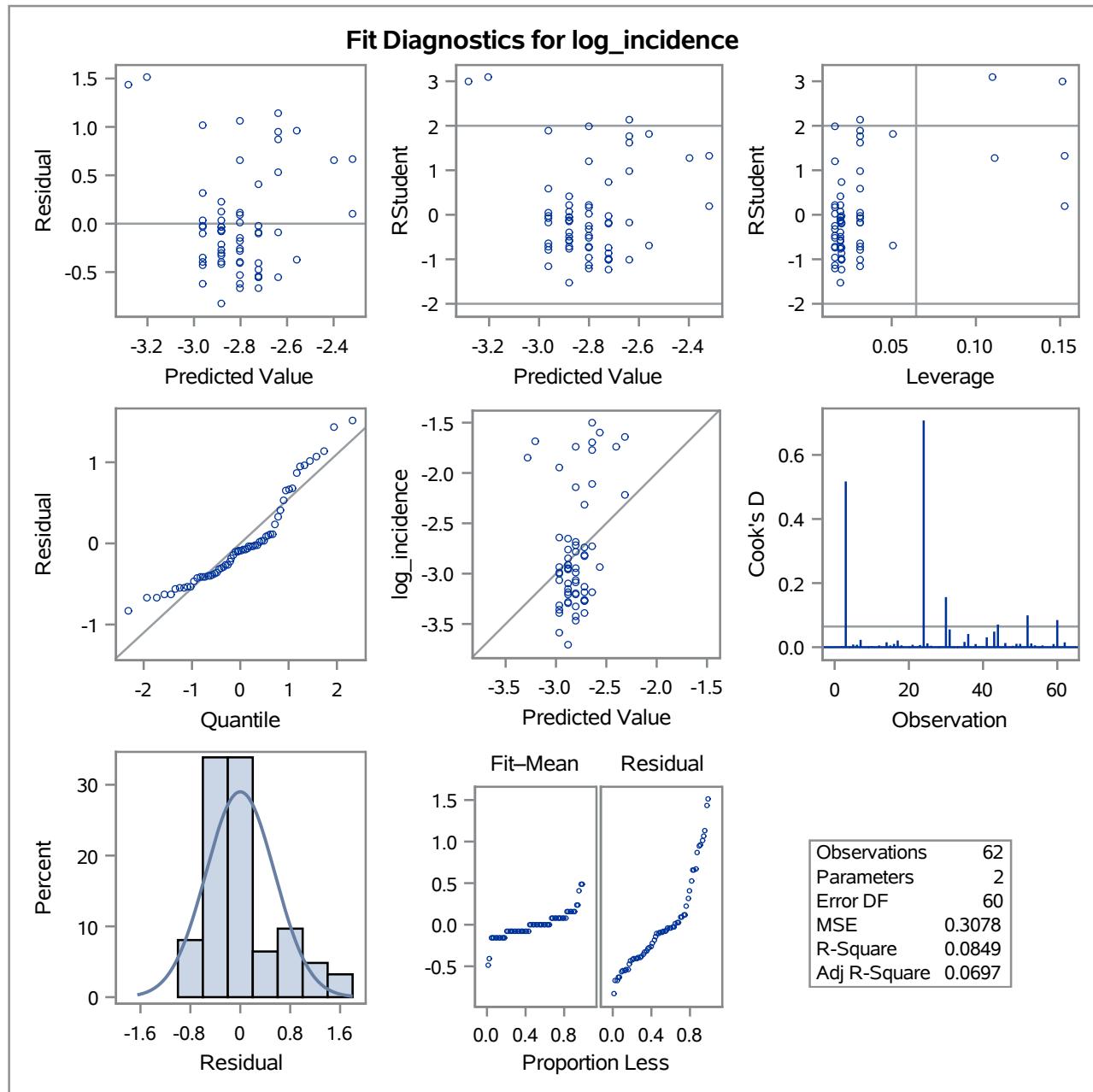
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	1.71430	1.71430	5.57	0.0215
Error	60	18.46750	0.30779		
Corrected Total	61	20.18180			

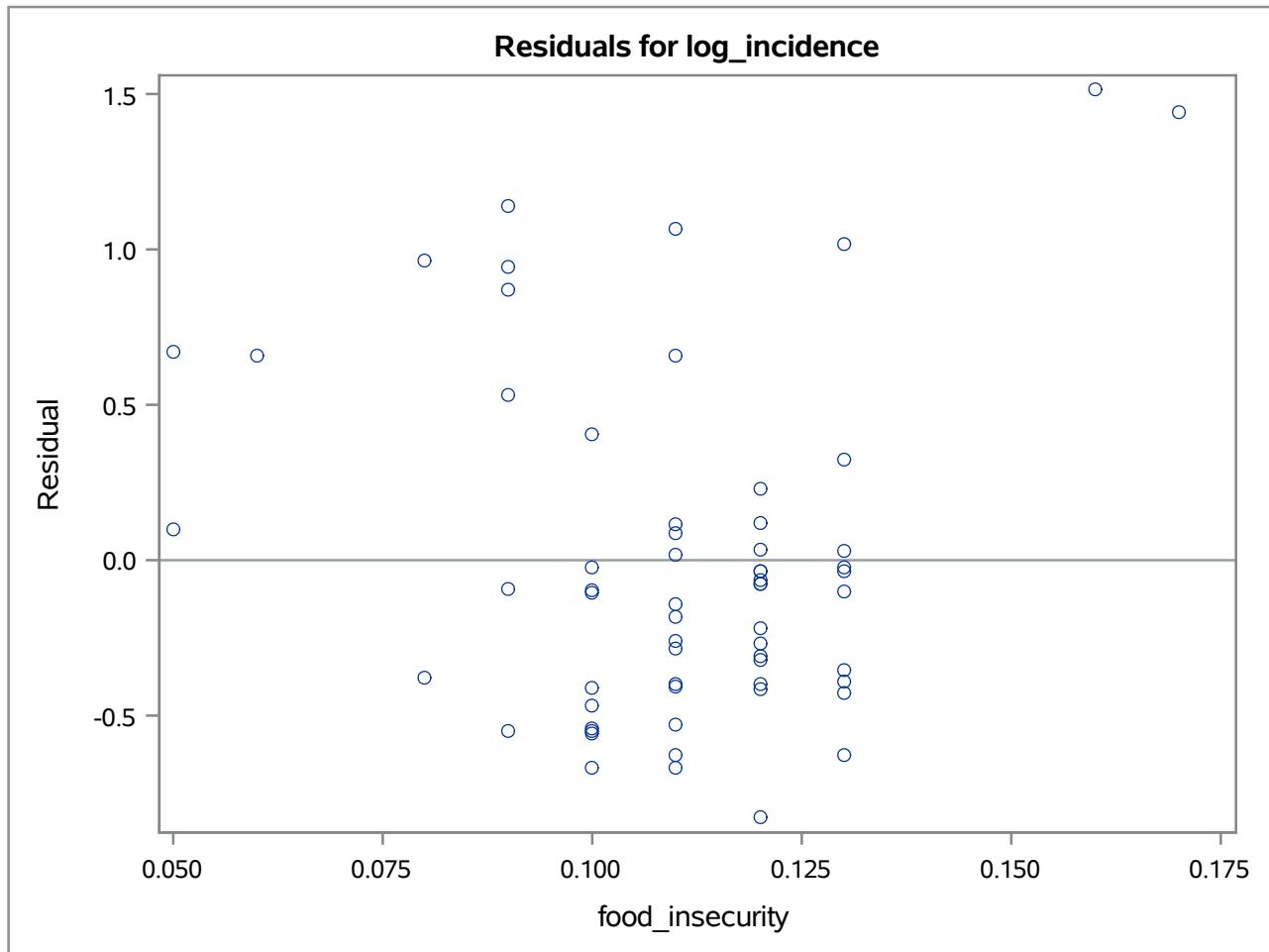
Root MSE	0.55479	R-Square	0.0849
Dependent Mean	-2.80241	Adj R-Sq	0.0697
Coeff Var	-19.79685		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	-1.91635	0.38200	-5.02	<.0001
food_insecurity	1	-8.04330	3.40815	-2.36	0.0215

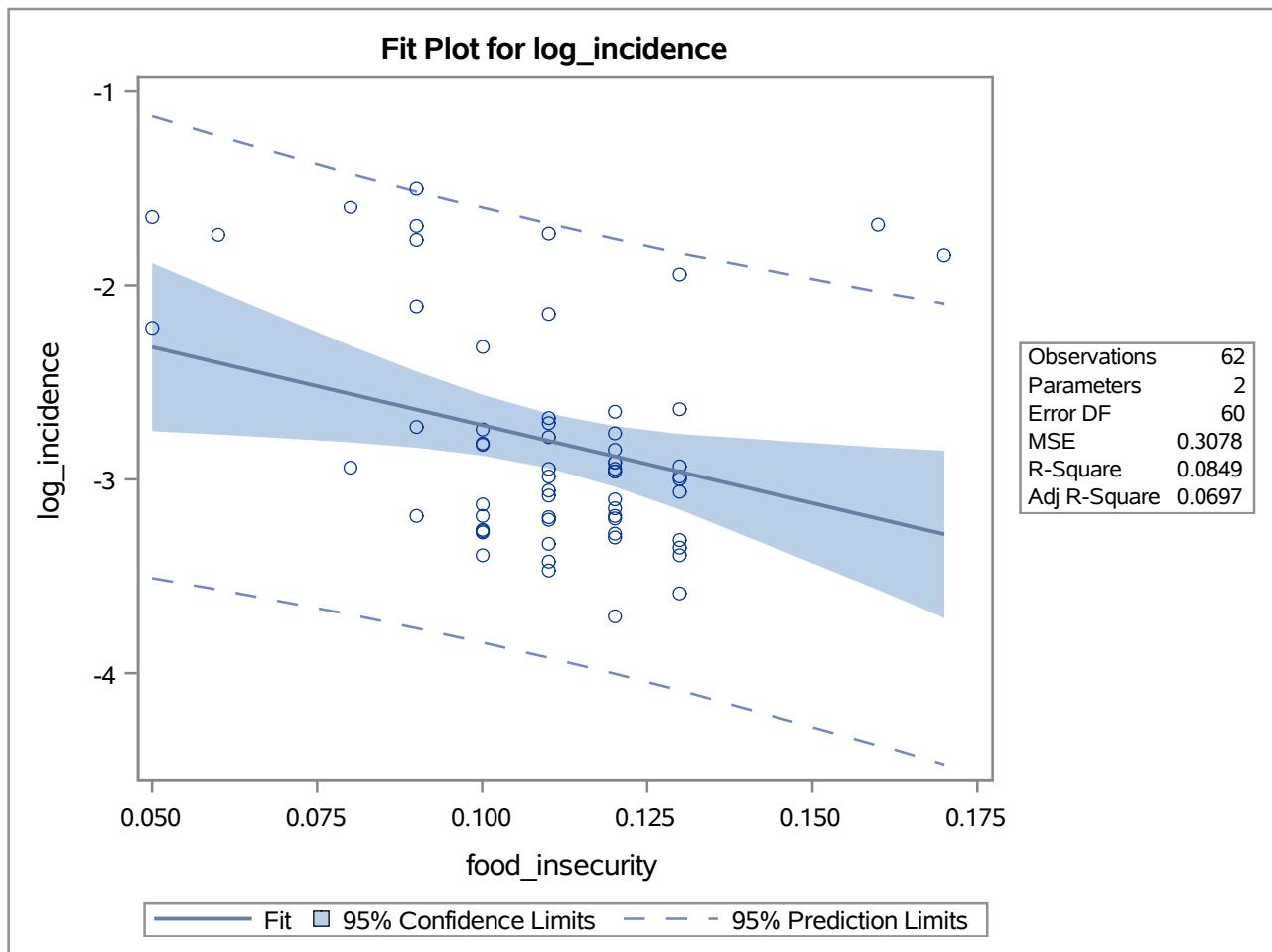
**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: log\_incidence**



The REG Procedure  
Model: MODEL1  
Dependent Variable: log\_incidence



The REG Procedure  
Model: MODEL1  
Dependent Variable: log\_incidence



**The REG Procedure**  
**Model: MODEL2**  
**Dependent Variable: log\_incidence**

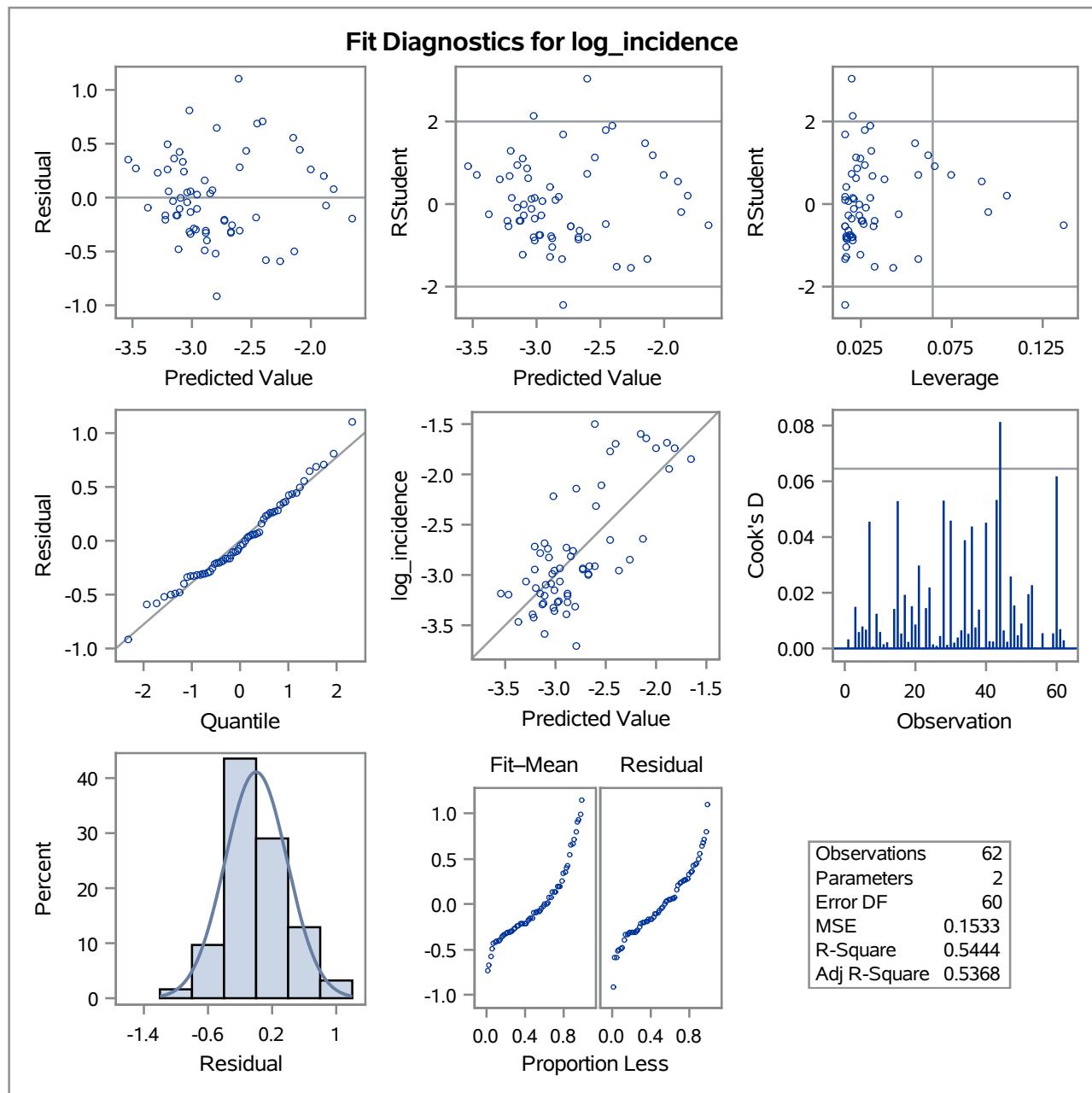
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	10.98635	10.98635	71.69	<.0001
Error	60	9.19545	0.15326		
Corrected Total	61	20.18180			

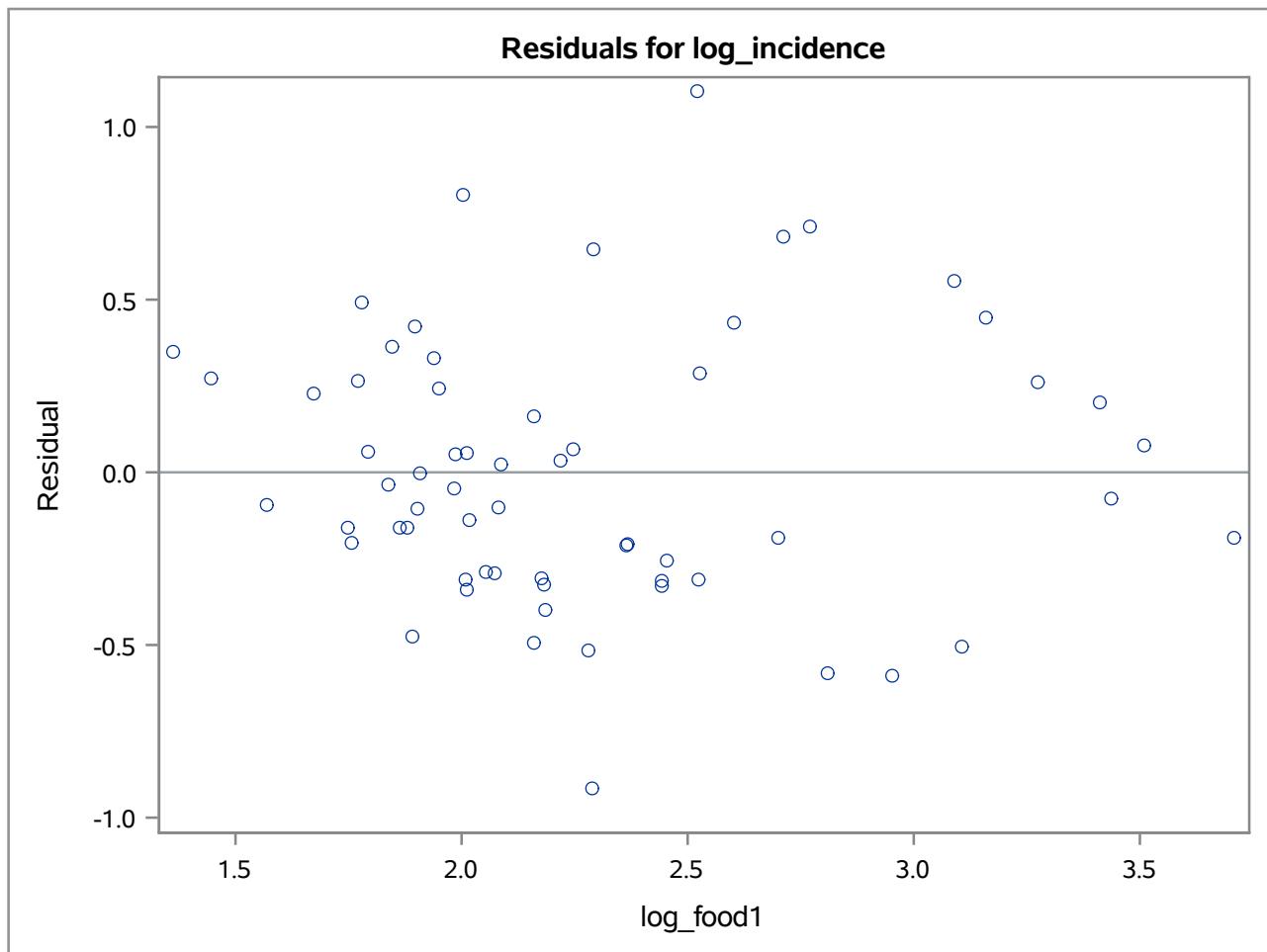
Root MSE	0.39148	R-Square	0.5444
Dependent Mean	-2.80241	Adj R-Sq	0.5368
Coeff Var	-13.96942		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	-4.63368	0.22193	-20.88	<.0001
log_food1	1	0.80404	0.09496	8.47	<.0001

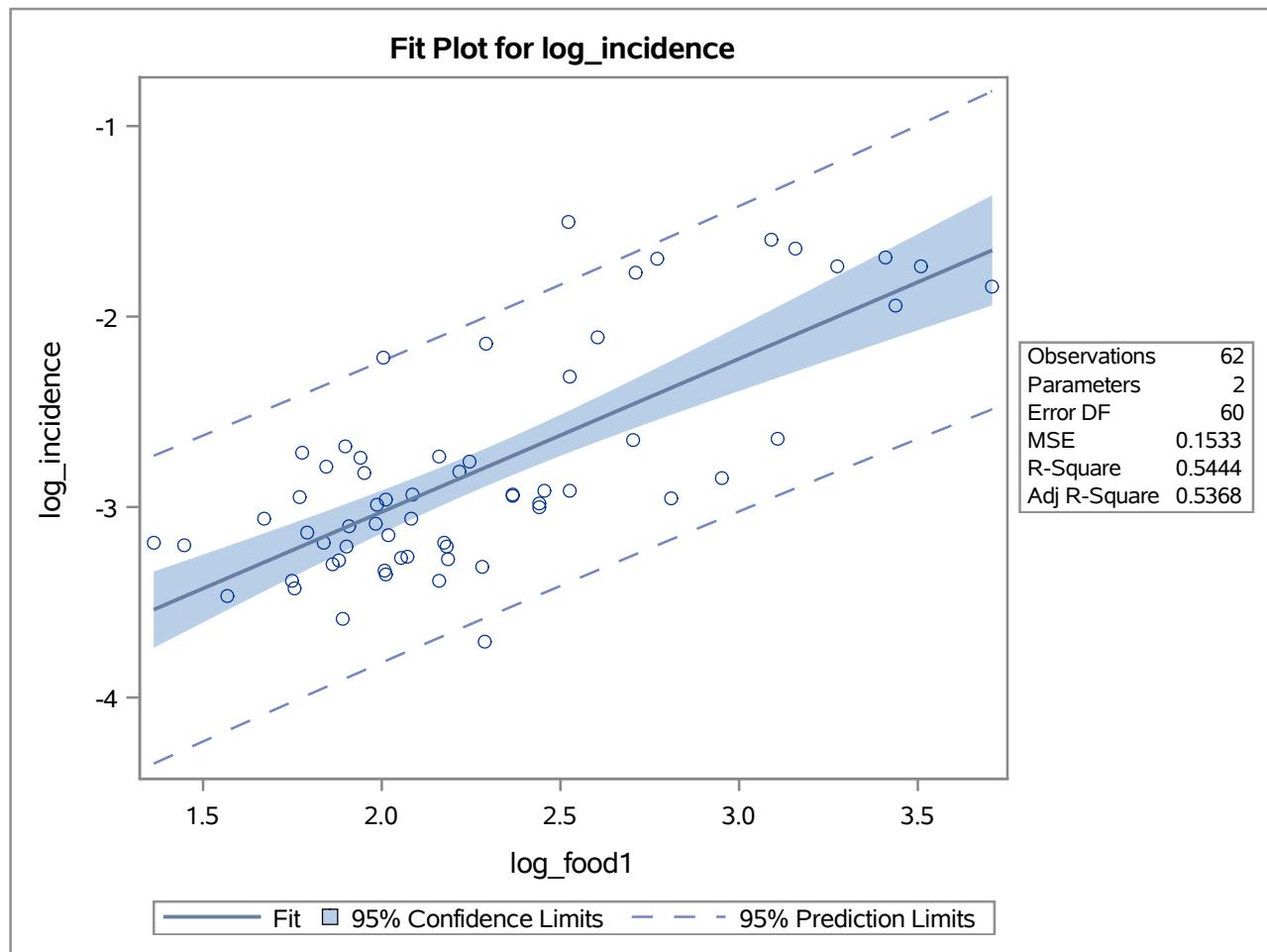
**The REG Procedure**  
**Model: MODEL2**  
**Dependent Variable: log\_incidence**



The REG Procedure  
Model: MODEL2  
Dependent Variable: log\_incidence



The REG Procedure  
Model: MODEL2  
Dependent Variable: log\_incidence



**The REG Procedure**  
**Model: MODEL3**  
**Dependent Variable: log\_incidence**

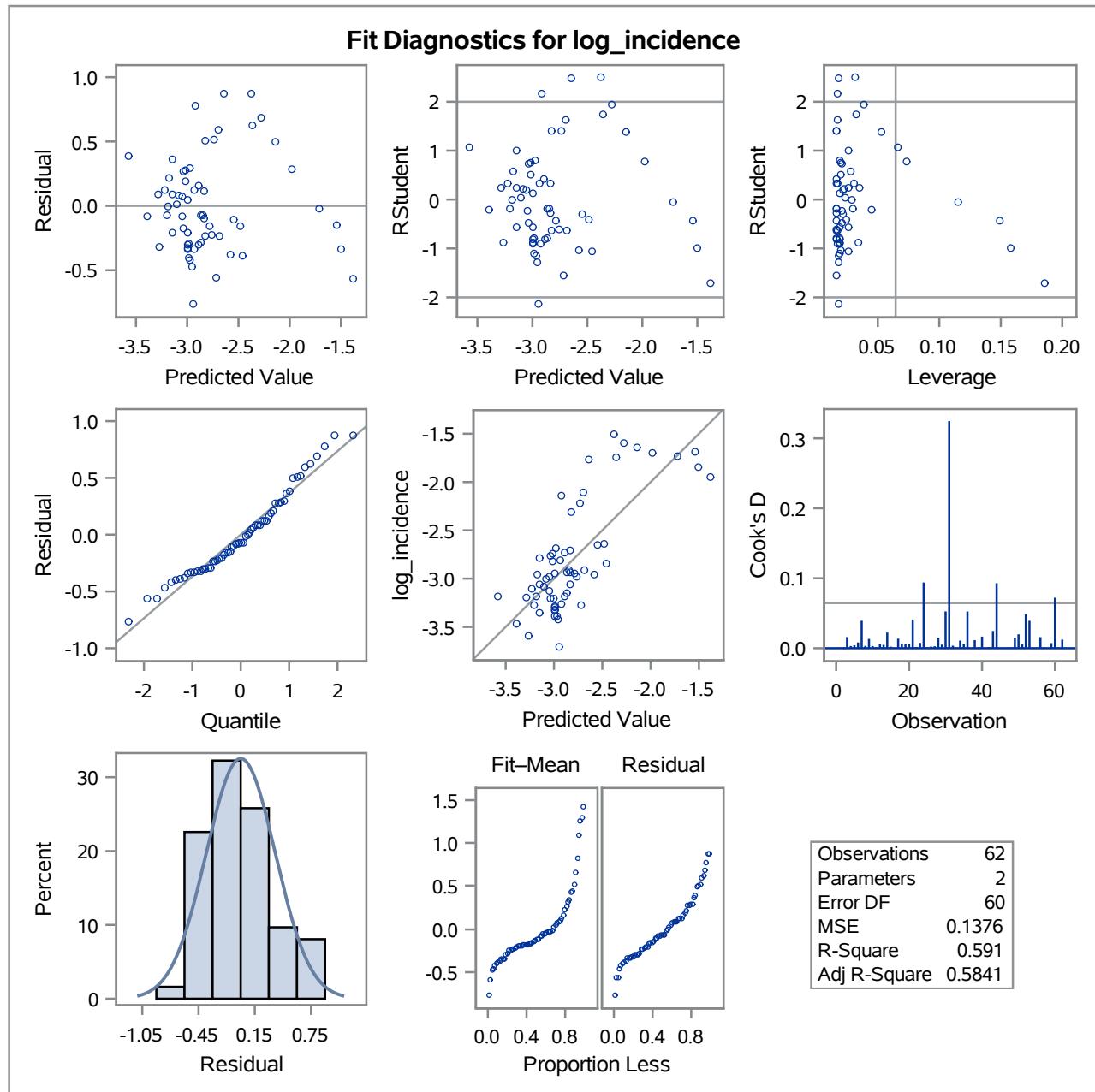
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	11.92676	11.92676	86.69	<.0001
Error	60	8.25504	0.13758		
Corrected Total	61	20.18180			

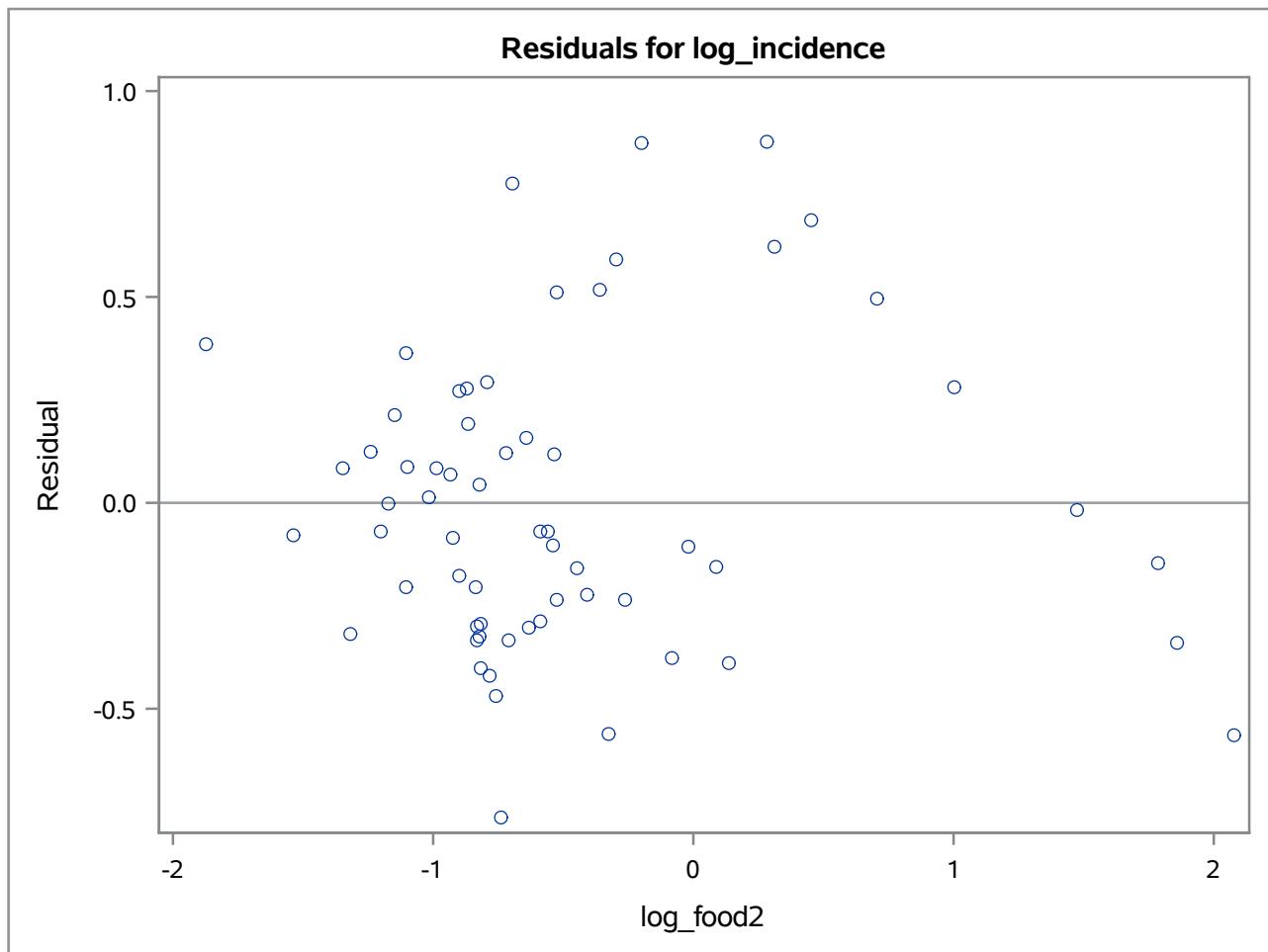
Root MSE	0.37092	R-Square	0.5910
Dependent Mean	-2.80241	Adj R-Sq	0.5841
Coeff Var	-13.23585		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	-2.53483	0.05518	-45.94	<.0001
log_food2	1	0.55549	0.05966	9.31	<.0001

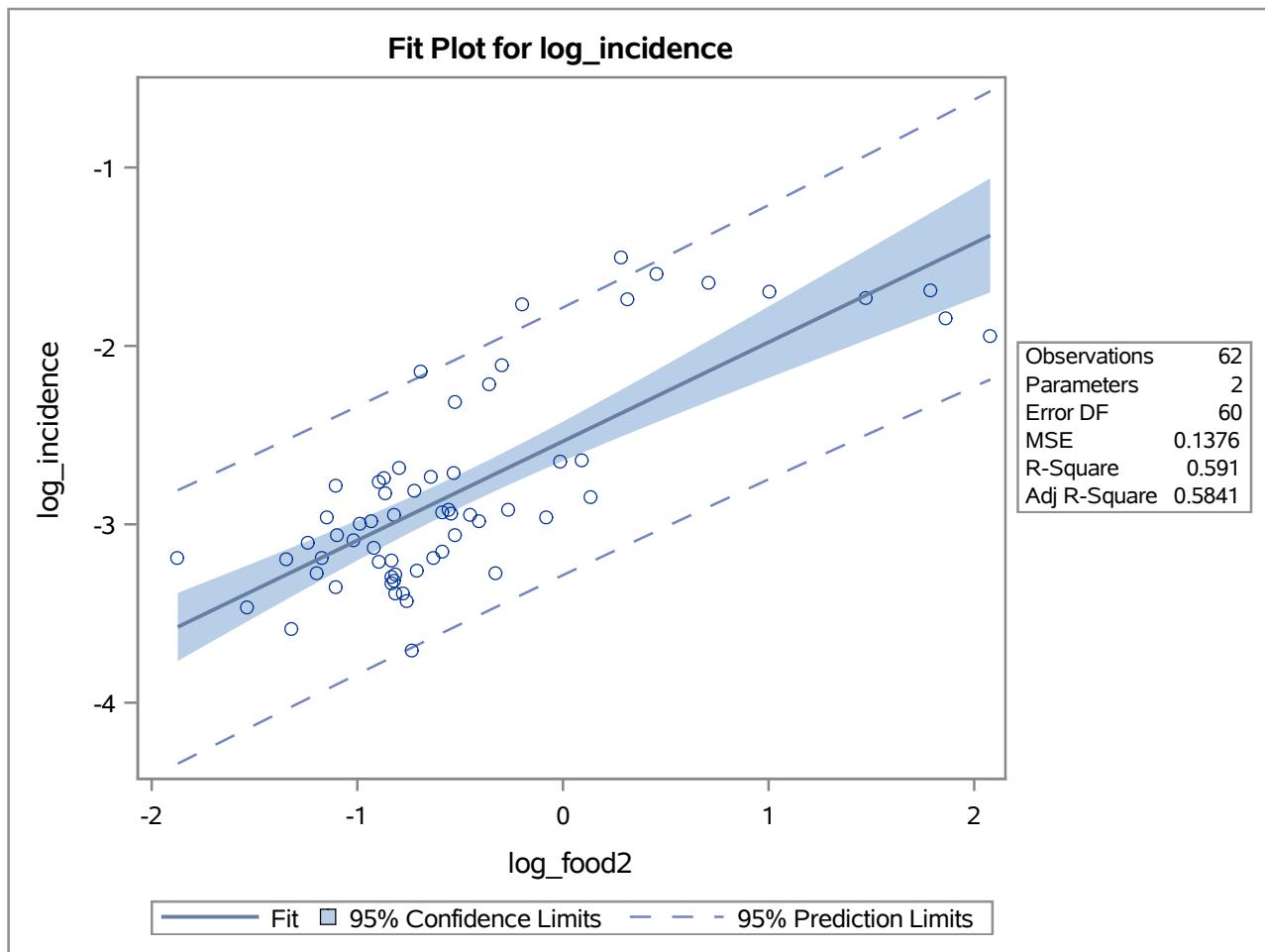
**The REG Procedure**  
**Model: MODEL3**  
**Dependent Variable: log\_incidence**



The REG Procedure  
Model: MODEL3  
Dependent Variable: log\_incidence



The REG Procedure  
Model: MODEL3  
Dependent Variable: log\_incidence



**The REG Procedure**  
**Model: MODEL4**  
**Dependent Variable: log\_incidence**

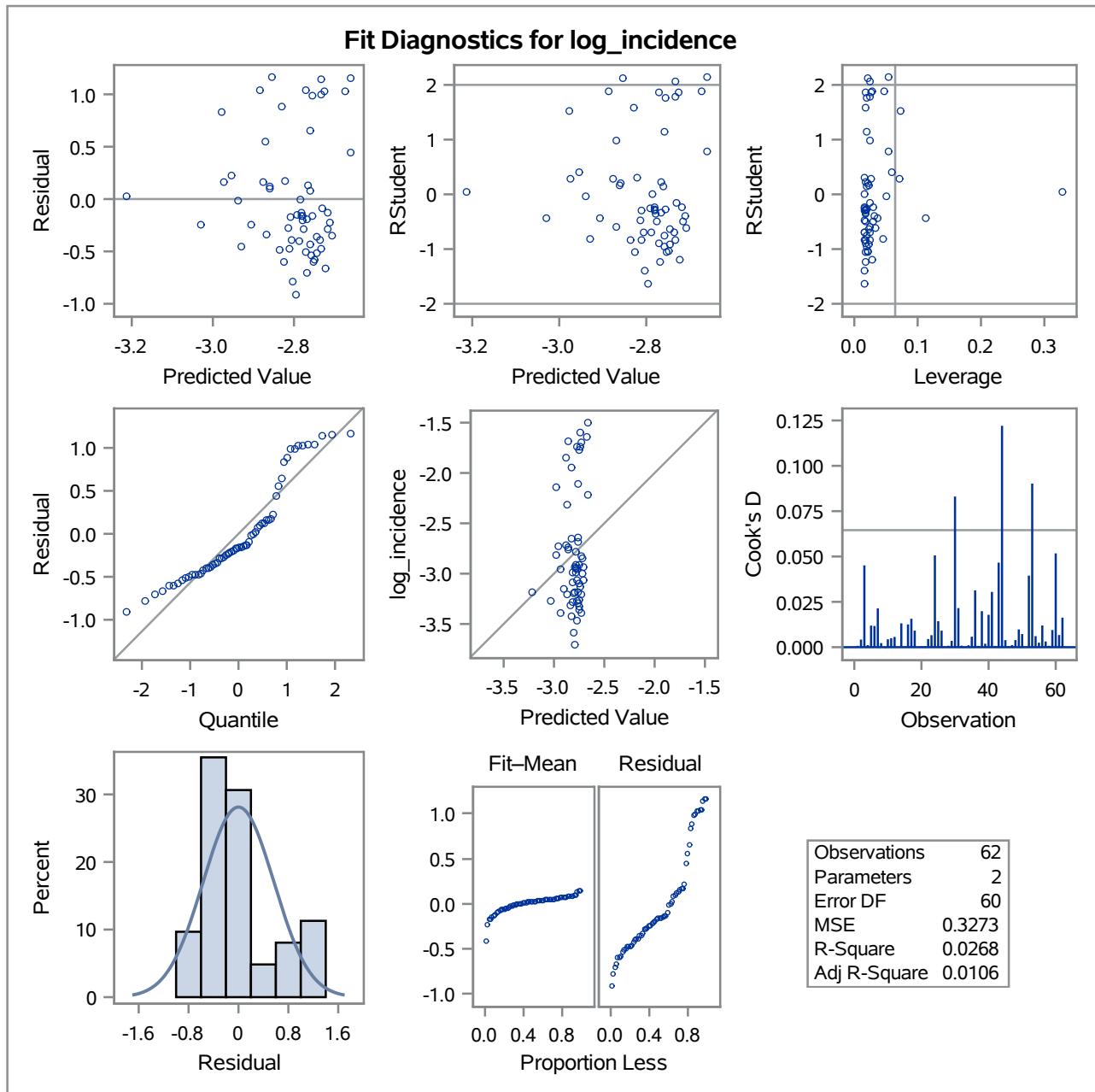
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	0.54150	0.54150	1.65	0.2033
Error	60	19.64030	0.32734		
Corrected Total	61	20.18180			

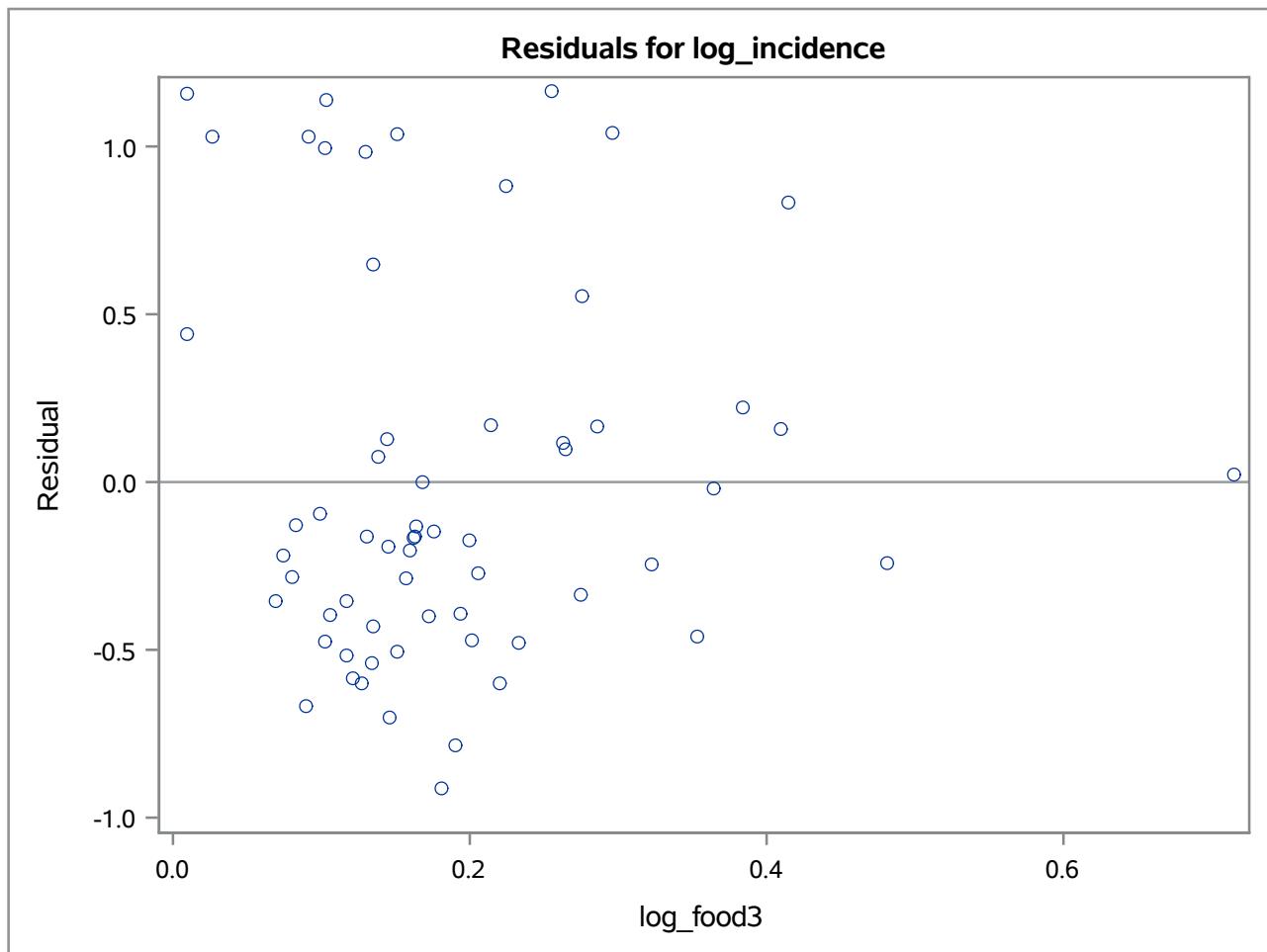
Root MSE	0.57213	R-Square	0.0268
Dependent Mean	-2.80241	Adj R-Sq	0.0106
Coeff Var	-20.41578		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	-2.65293	0.13707	-19.36	<.0001
log_food3	1	-0.78439	0.60986	-1.29	0.2033

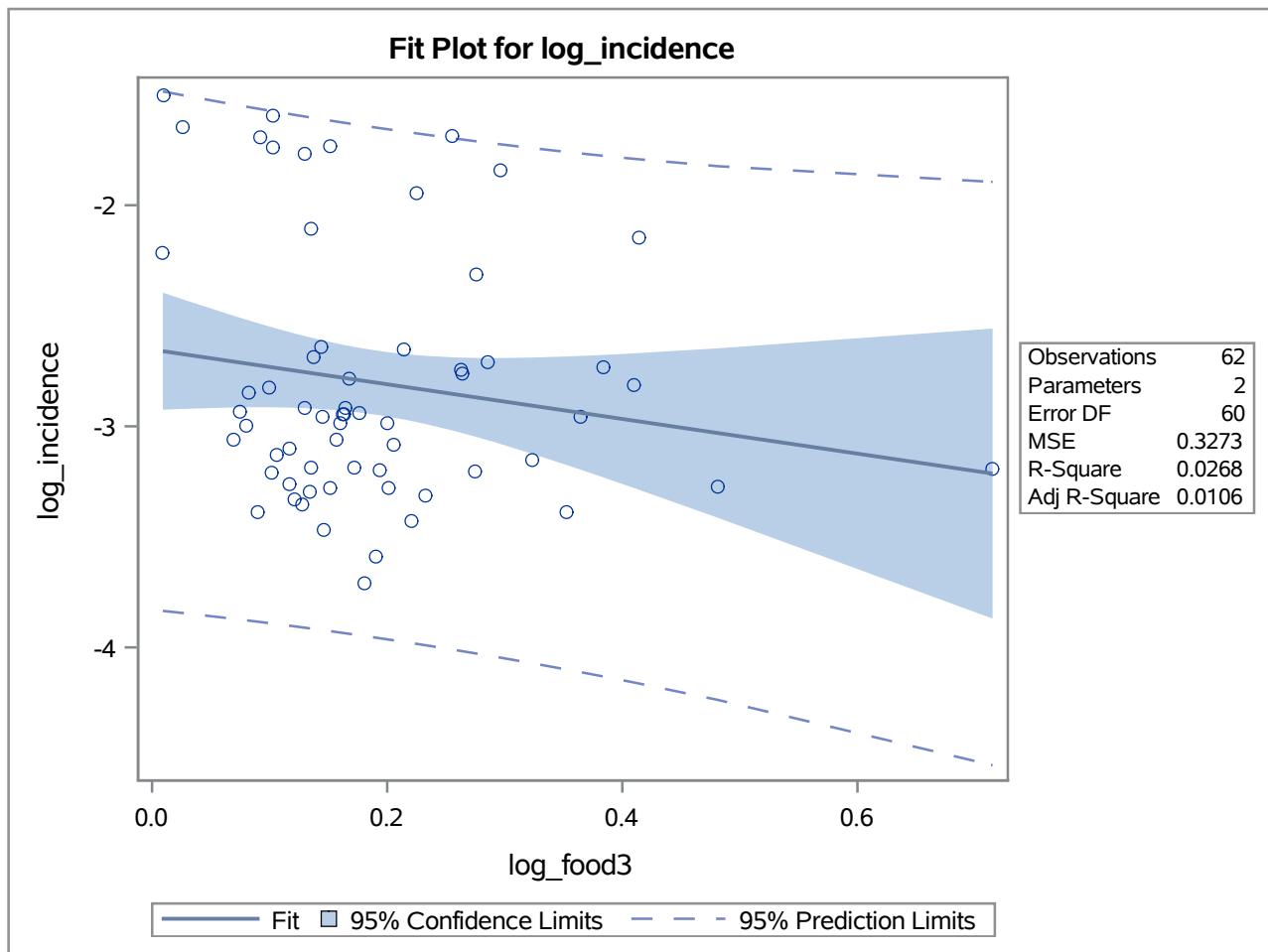
**The REG Procedure**  
**Model: MODEL4**  
**Dependent Variable: log\_incidence**



The REG Procedure  
Model: MODEL4  
Dependent Variable: log\_incidence



The REG Procedure  
Model: MODEL4  
Dependent Variable: log\_incidence



**The REG Procedure**  
**Model: MODEL5**  
**Dependent Variable: log\_incidence**

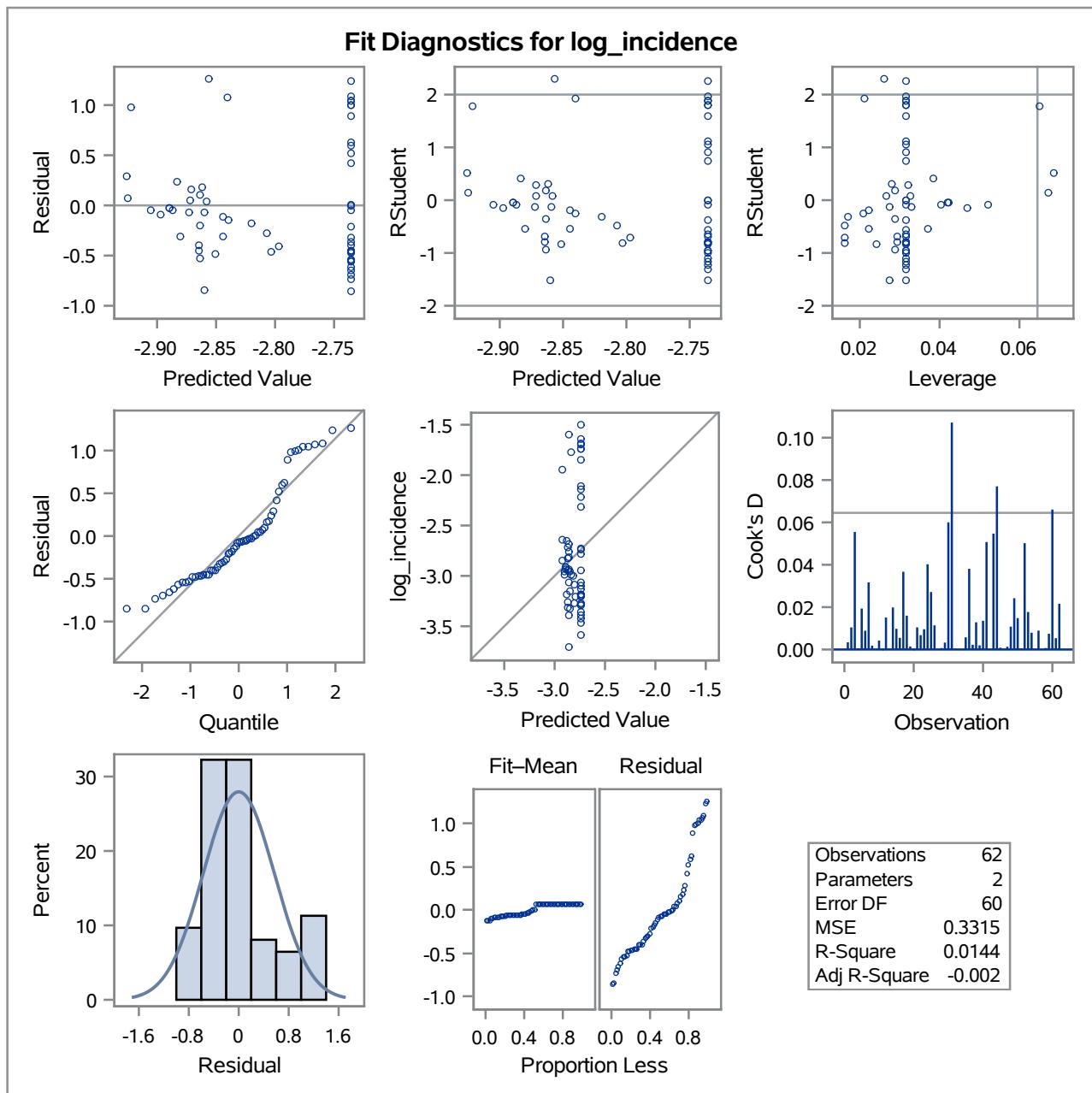
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	0.29132	0.29132	0.88	0.3523
Error	60	19.89048	0.33151		
Corrected Total	61	20.18180			

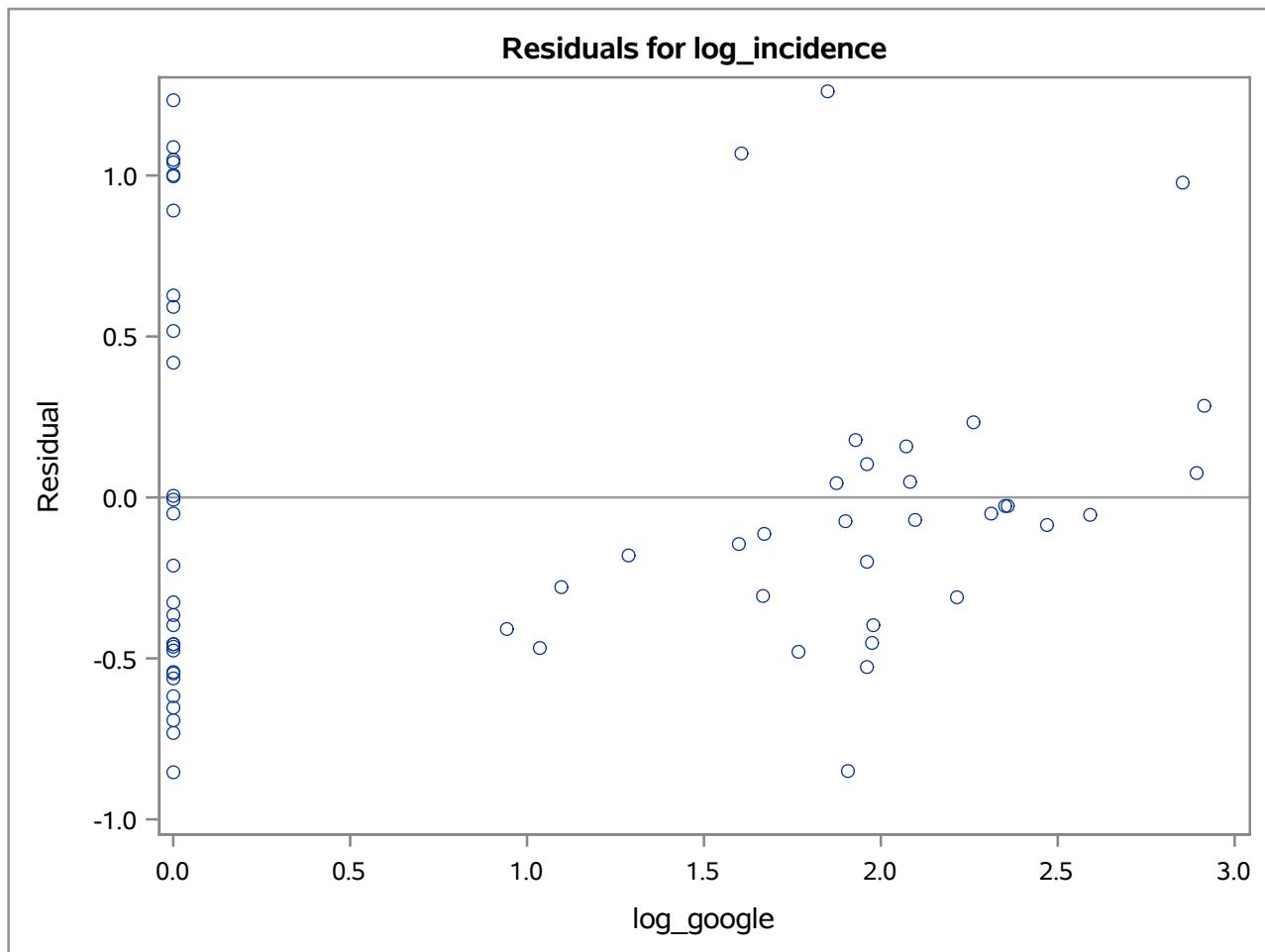
Root MSE	0.57577	R-Square	0.0144
Dependent Mean	-2.80241	Adj R-Sq	-0.0020
Coeff Var	-20.54540		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	-2.73558	0.10213	-26.79	<.0001
log_google	1	-0.06532	0.06968	-0.94	0.3523

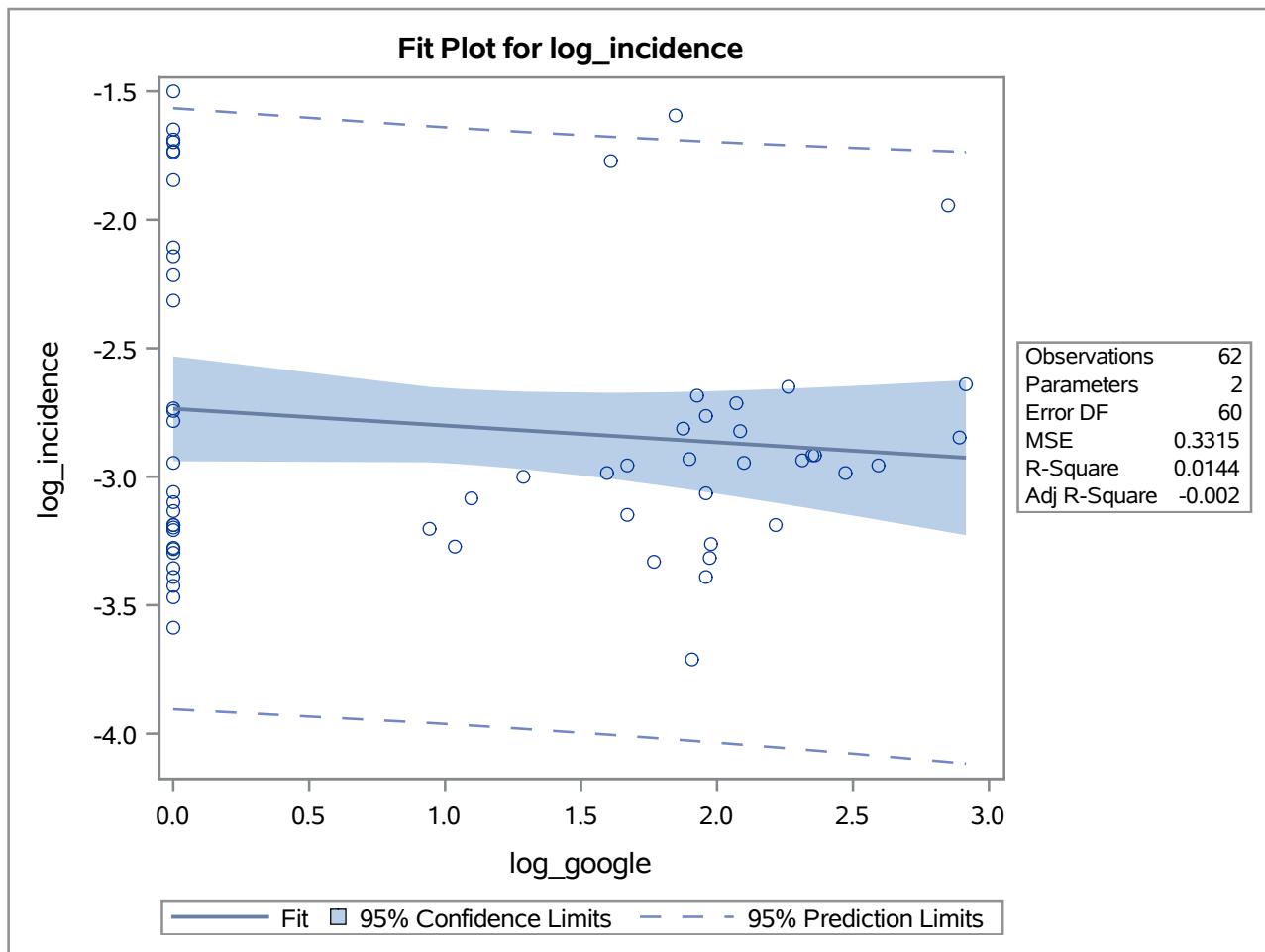
**The REG Procedure**  
**Model: MODEL5**  
**Dependent Variable: log\_incidence**



The REG Procedure  
Model: MODEL5  
Dependent Variable: log\_incidence



The REG Procedure  
Model: MODEL5  
Dependent Variable: log\_incidence



**The REG Procedure**  
**Model: MODEL6**  
**Dependent Variable: log\_incidence**

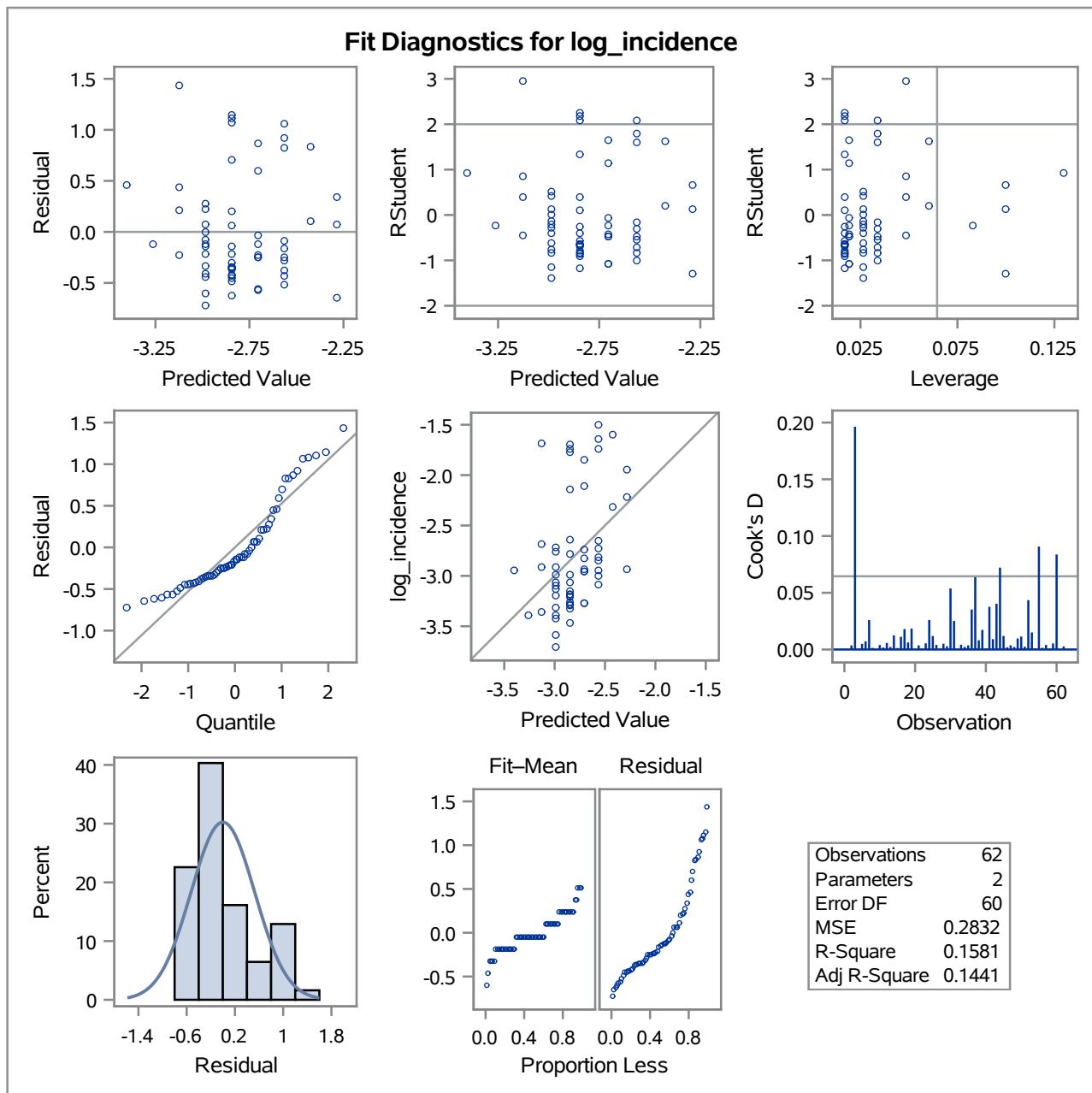
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	3.19085	3.19085	11.27	0.0014
Error	60	16.99095	0.28318		
Corrected Total	61	20.18180			

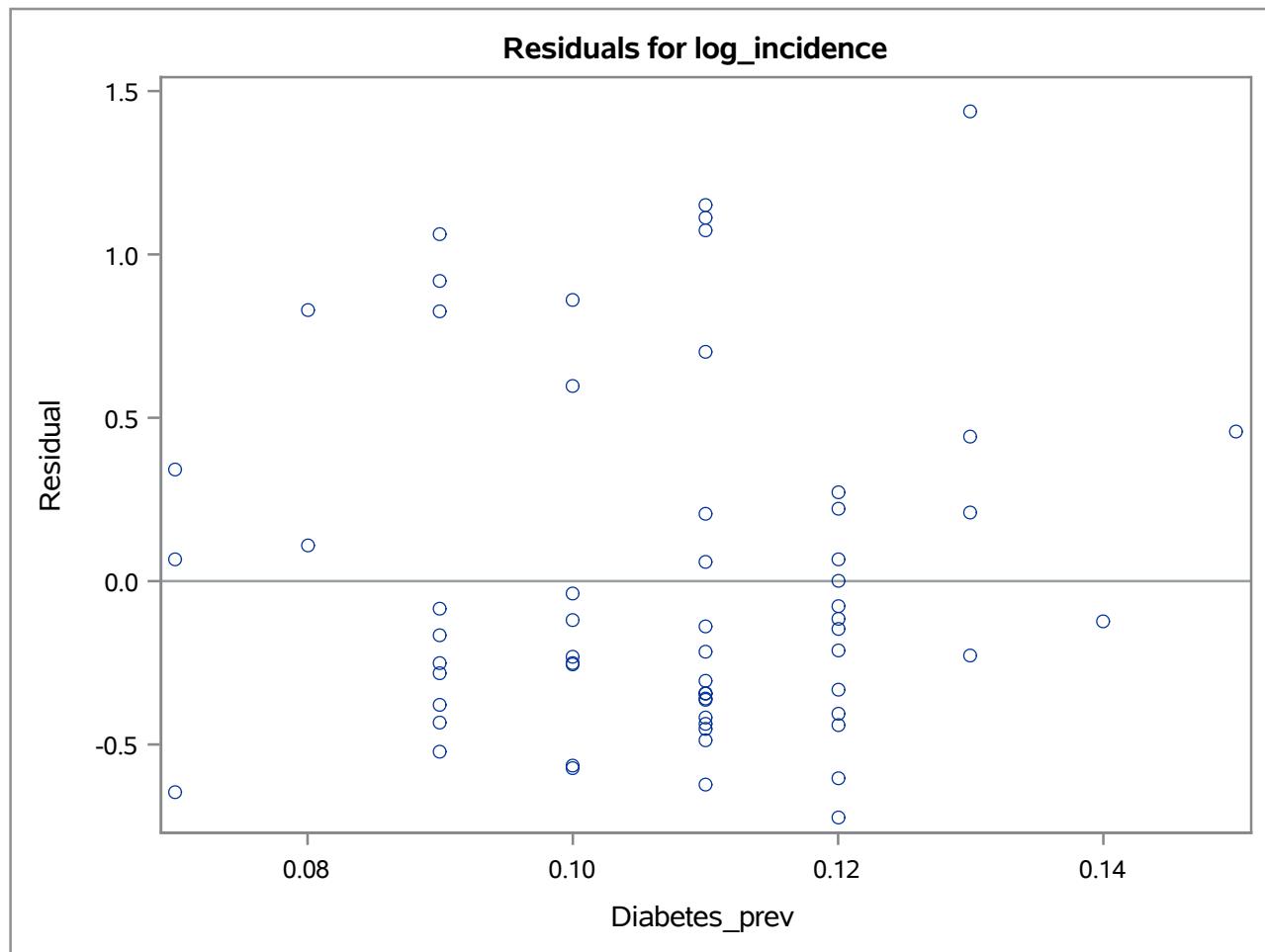
Root MSE	0.53215	R-Square	0.1581
Dependent Mean	-2.80241	Adj R-Sq	0.1441
Coeff Var	-18.98894		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	-1.30706	0.45057	-2.90	0.0052
Diabetes_prev	1	-13.98374	4.16585	-3.36	0.0014

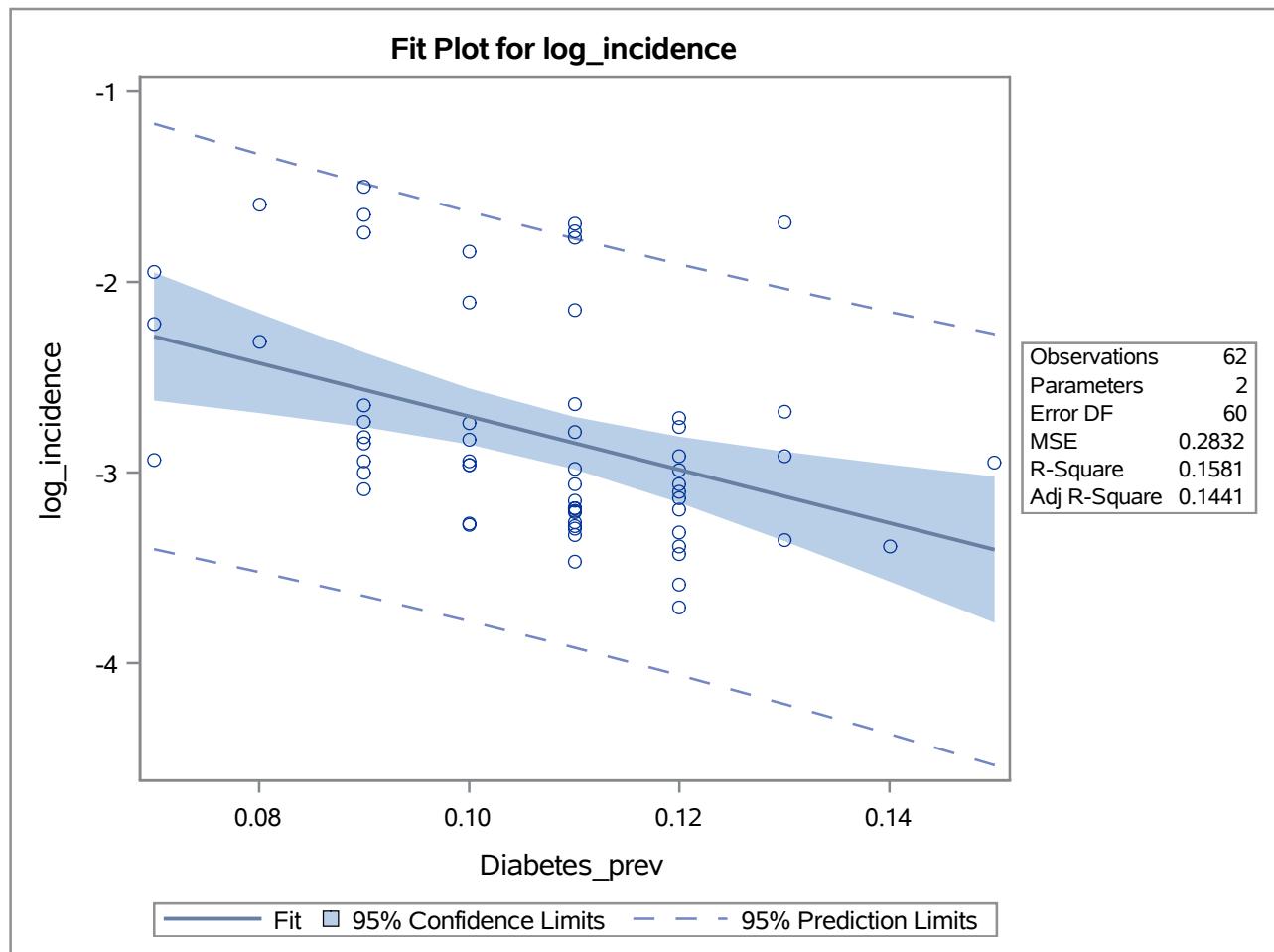
**The REG Procedure**  
**Model: MODEL6**  
**Dependent Variable: log\_incidence**



The REG Procedure  
Model: MODEL6  
Dependent Variable: log\_incidence



The REG Procedure  
Model: MODEL6  
Dependent Variable: log\_incidence



**The REG Procedure**  
**Model: MODEL7**  
**Dependent Variable: log\_incidence**

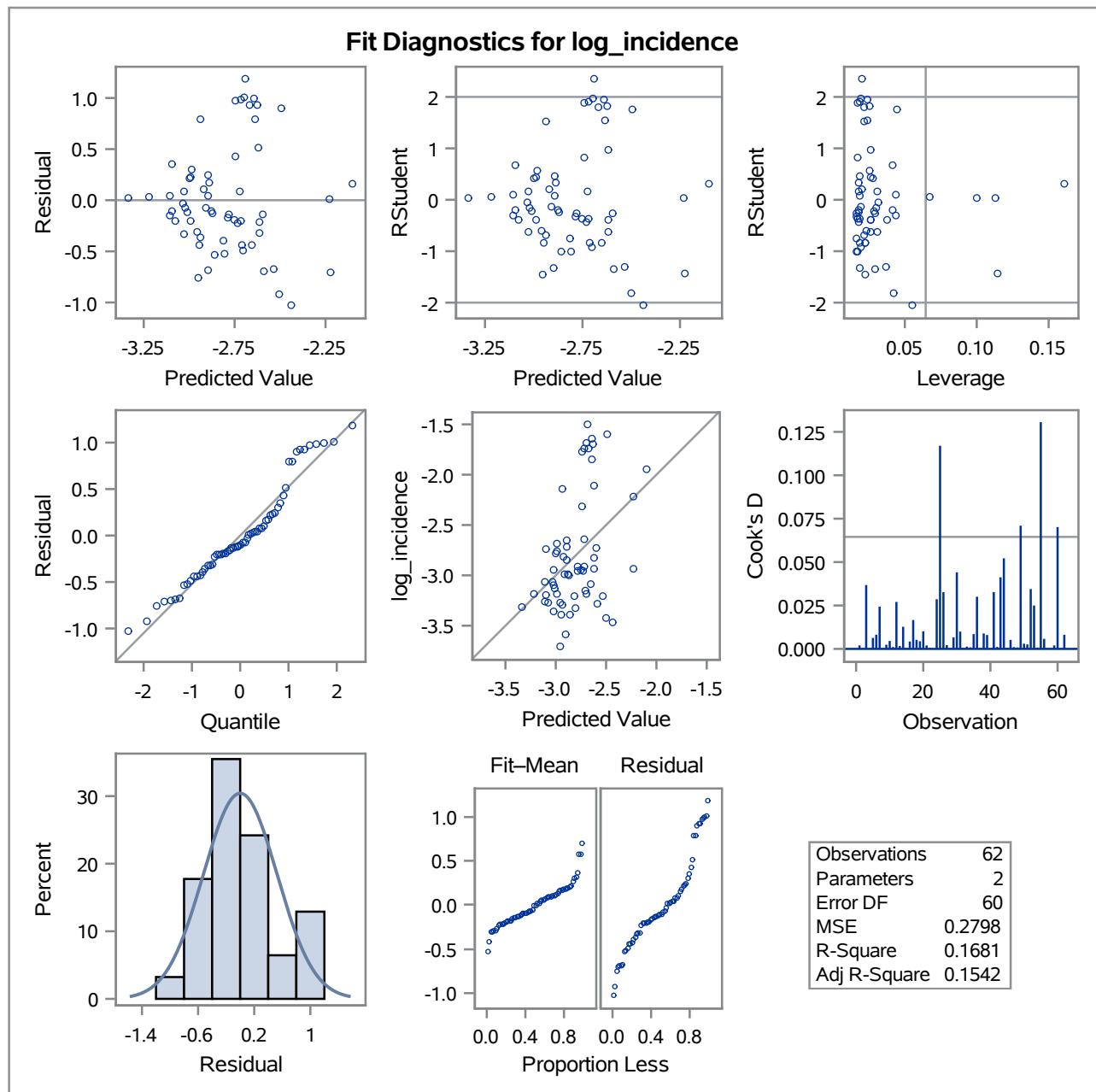
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	3.39165	3.39165	12.12	0.0009
Error	60	16.79015	0.27984		
Corrected Total	61	20.18180			

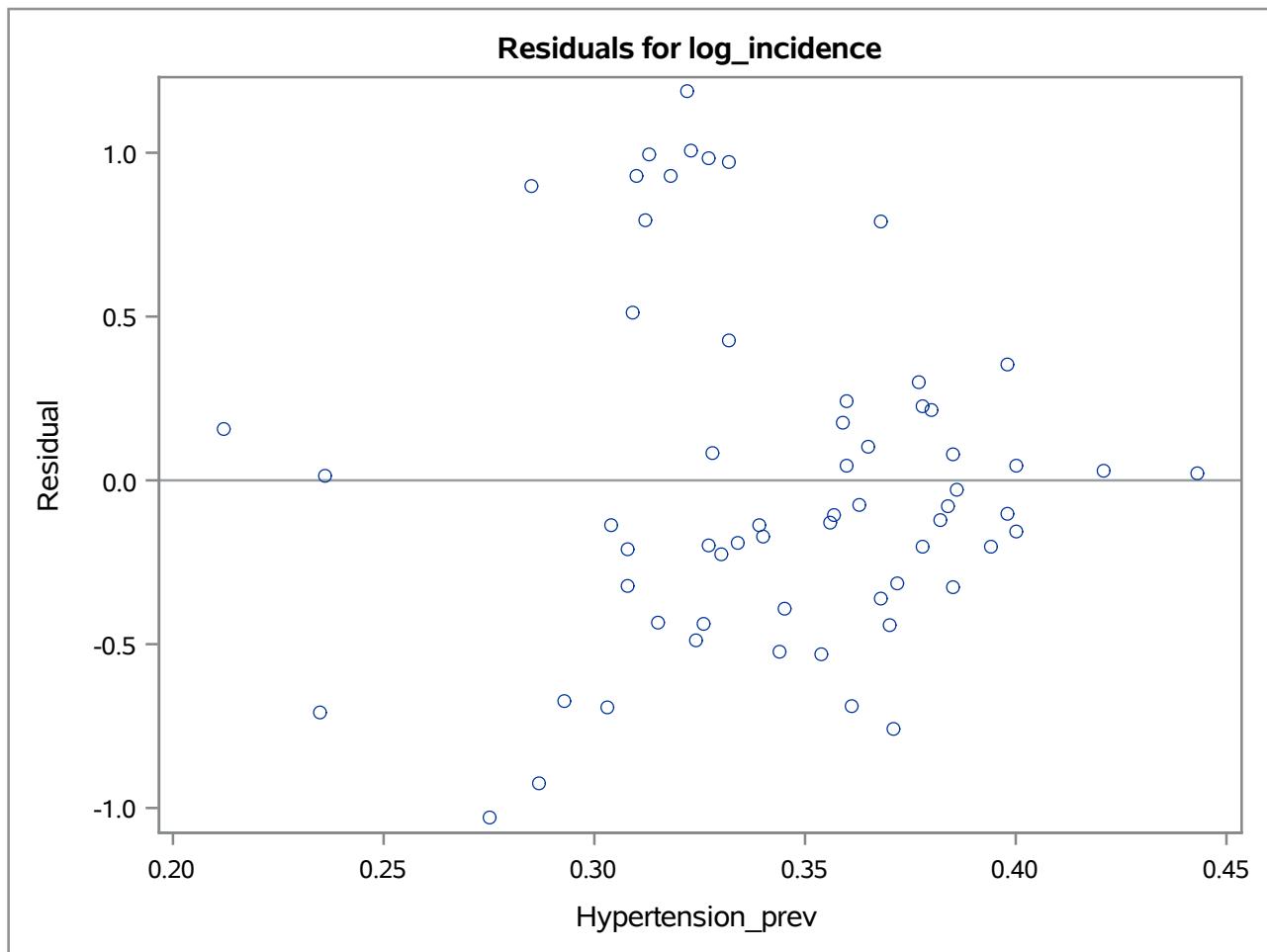
Root MSE	0.52900	R-Square	0.1681
Dependent Mean	-2.80241	Adj R-Sq	0.1542
Coeff Var	-18.87641		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	-0.96832	0.53109	-1.82	0.0732
Hypertension_prev	1	-5.34646	1.53572	-3.48	0.0009

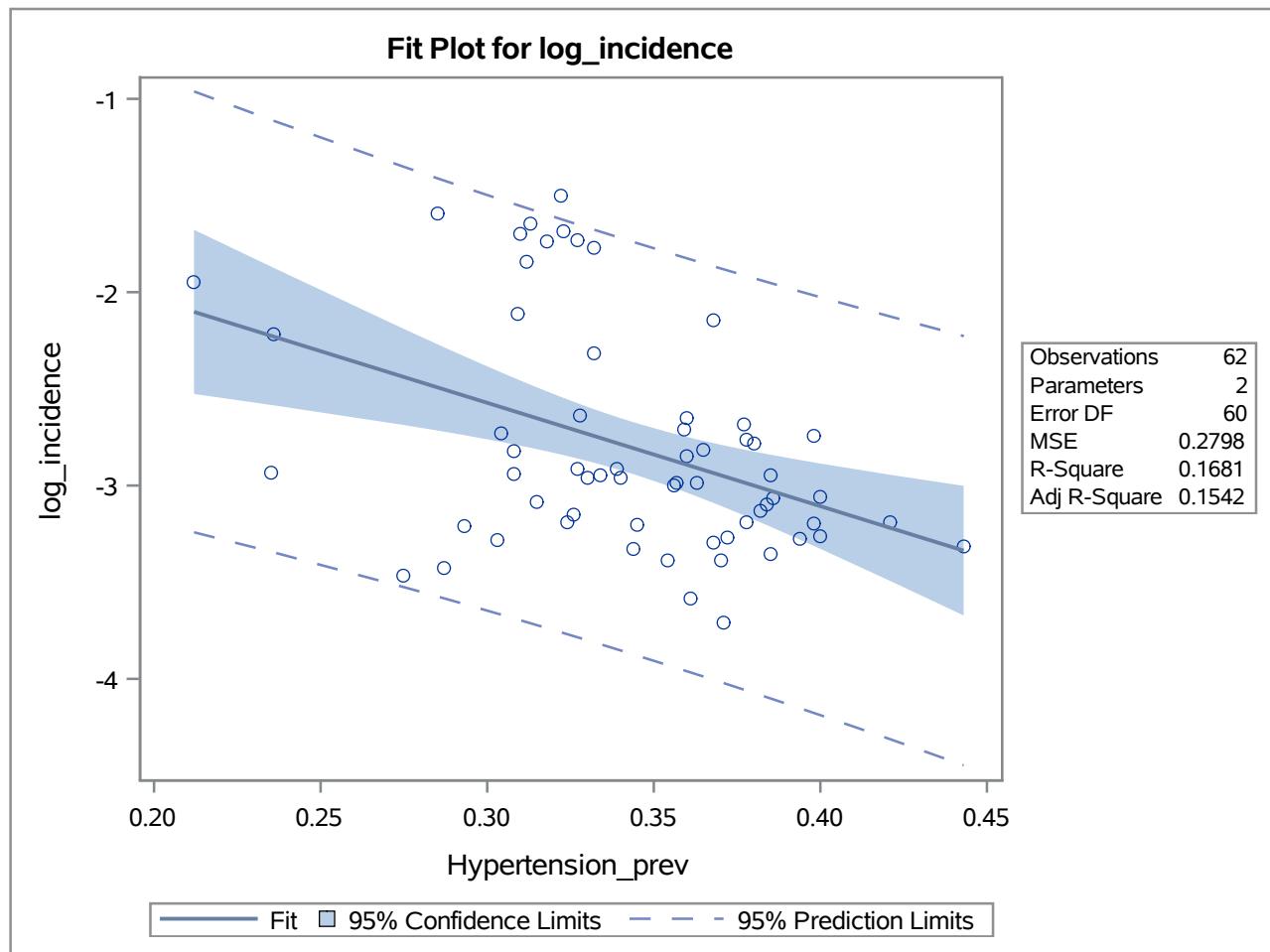
**The REG Procedure**  
**Model: MODEL7**  
**Dependent Variable: log\_incidence**



The REG Procedure  
Model: MODEL7  
Dependent Variable: log\_incidence



The REG Procedure  
Model: MODEL7  
Dependent Variable: log\_incidence



**The REG Procedure**  
**Model: MODEL8**  
**Dependent Variable: log\_incidence**

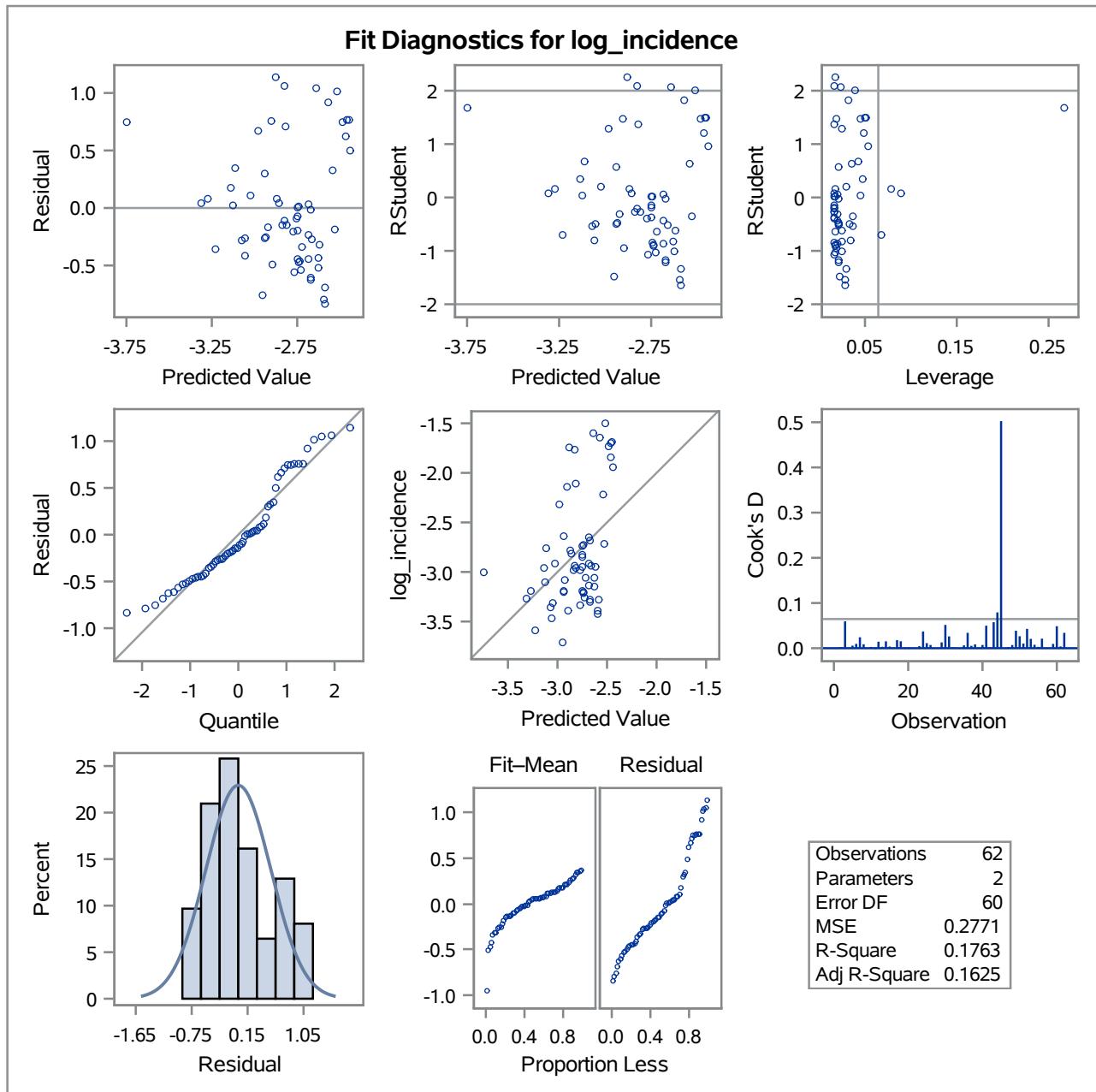
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	3.55713	3.55713	12.84	0.0007
Error	60	16.62467	0.27708		
Corrected Total	61	20.18180			

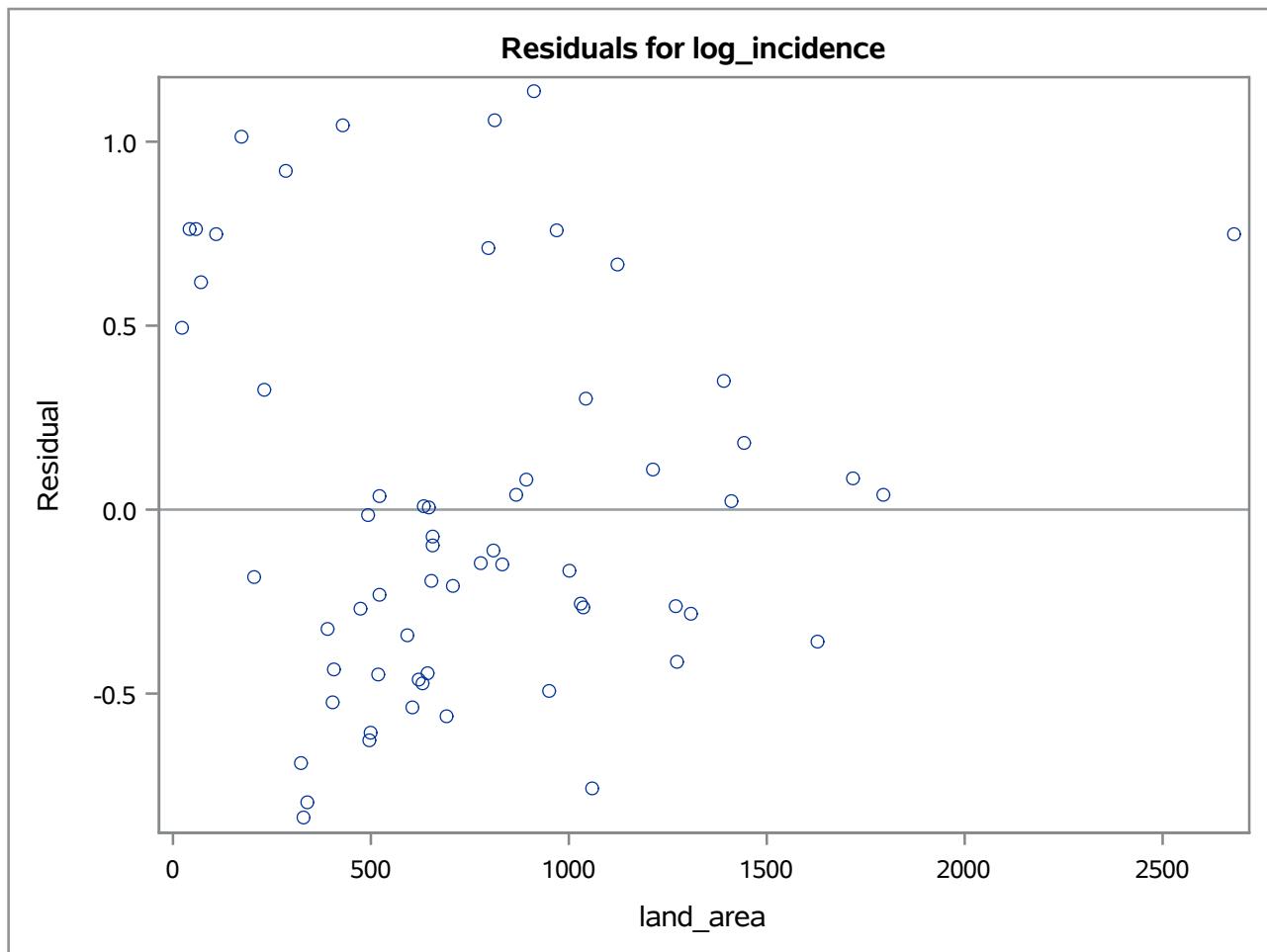
Root MSE	0.52638	R-Square	0.1763
Dependent Mean	-2.80241	Adj R-Sq	0.1625
Coeff Var	-18.78315		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	-2.42843	0.12395	-19.59	<.0001
land_area	1	-0.00049201	0.00013732	-3.58	0.0007

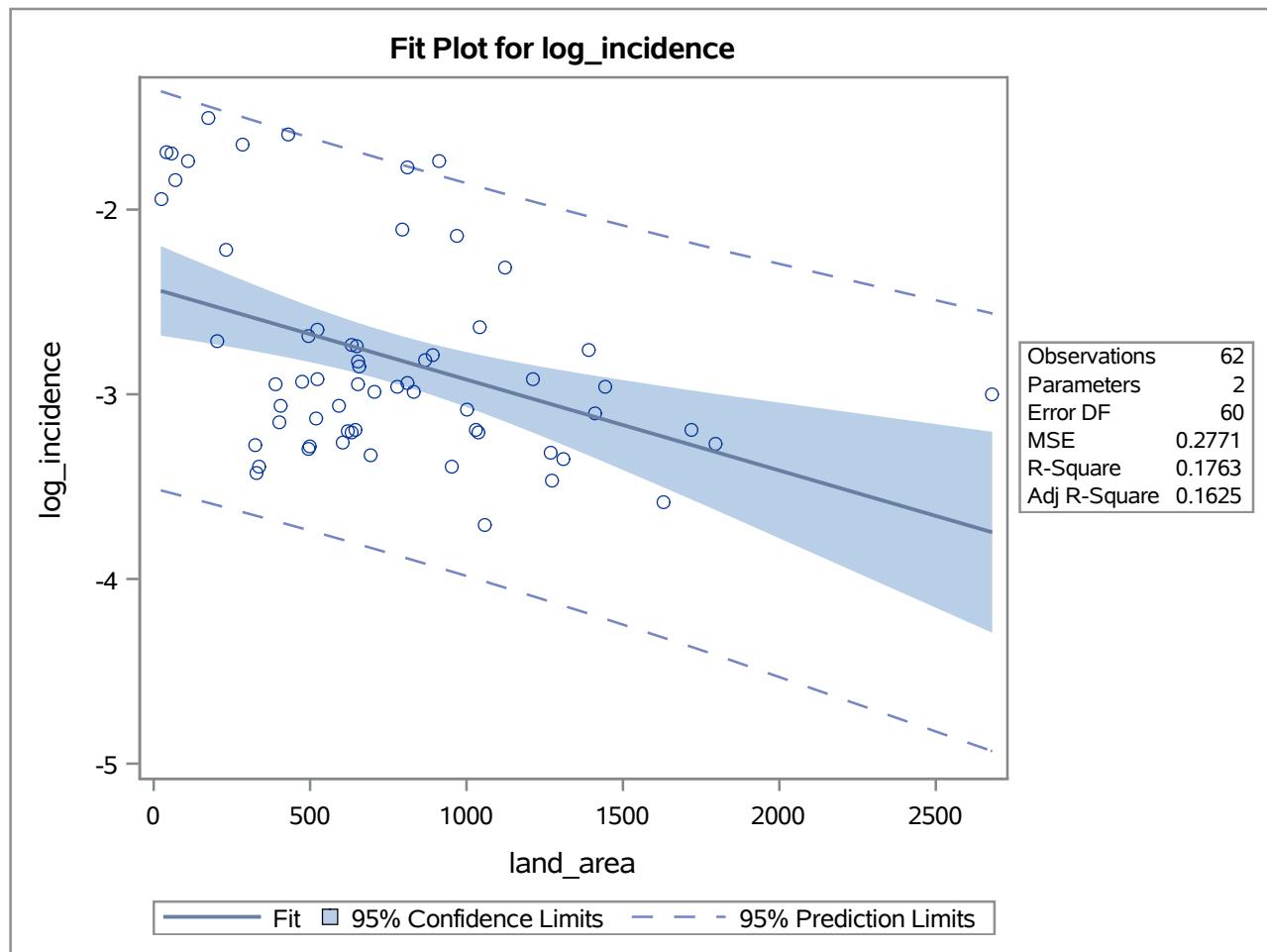
**The REG Procedure**  
**Model: MODEL8**  
**Dependent Variable: log\_incidence**



The REG Procedure  
Model: MODEL8  
Dependent Variable: log\_incidence



The REG Procedure  
Model: MODEL8  
Dependent Variable: log\_incidence



**The REG Procedure**  
**Model: MODEL9**  
**Dependent Variable: log\_incidence**

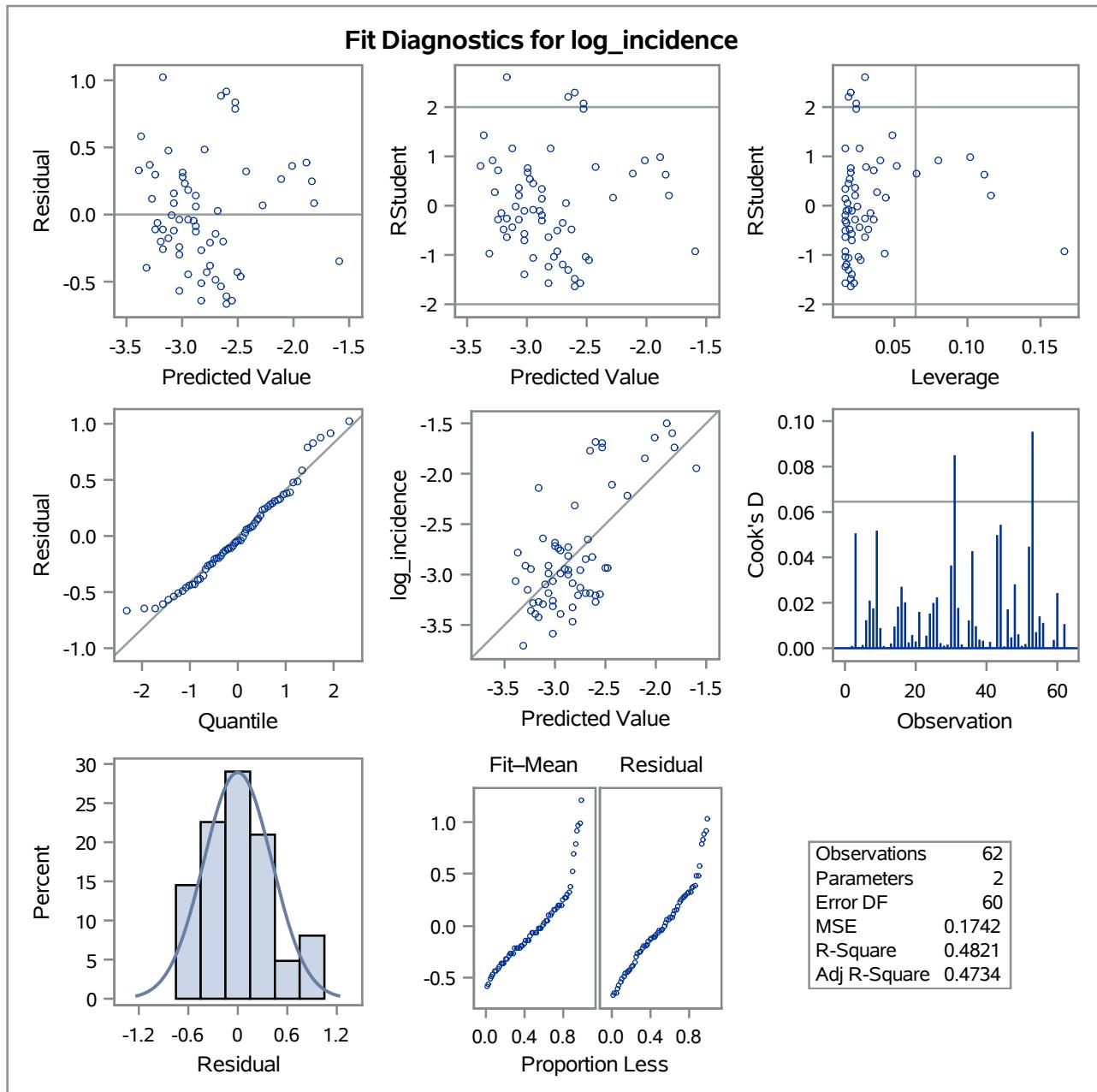
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	9.72909	9.72909	55.85	<.0001
Error	60	10.45271	0.17421		
Corrected Total	61	20.18180			

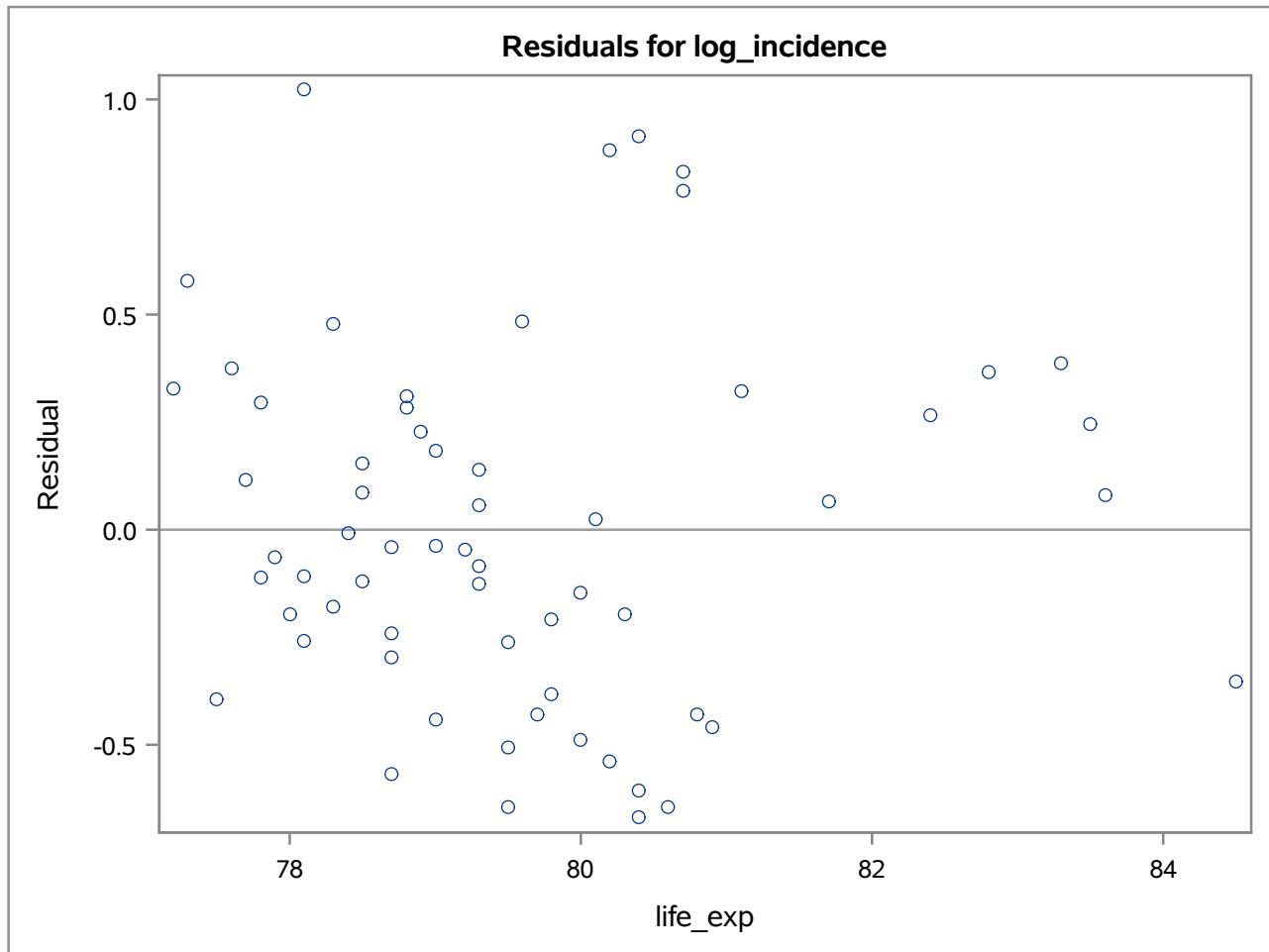
Root MSE	0.41739	R-Square	0.4821
Dependent Mean	-2.80241	Adj R-Sq	0.4734
Coeff Var	-14.89383		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	-22.37752	2.61997	-8.54	<.0001
life_exp	1	0.24596	0.03291	7.47	<.0001

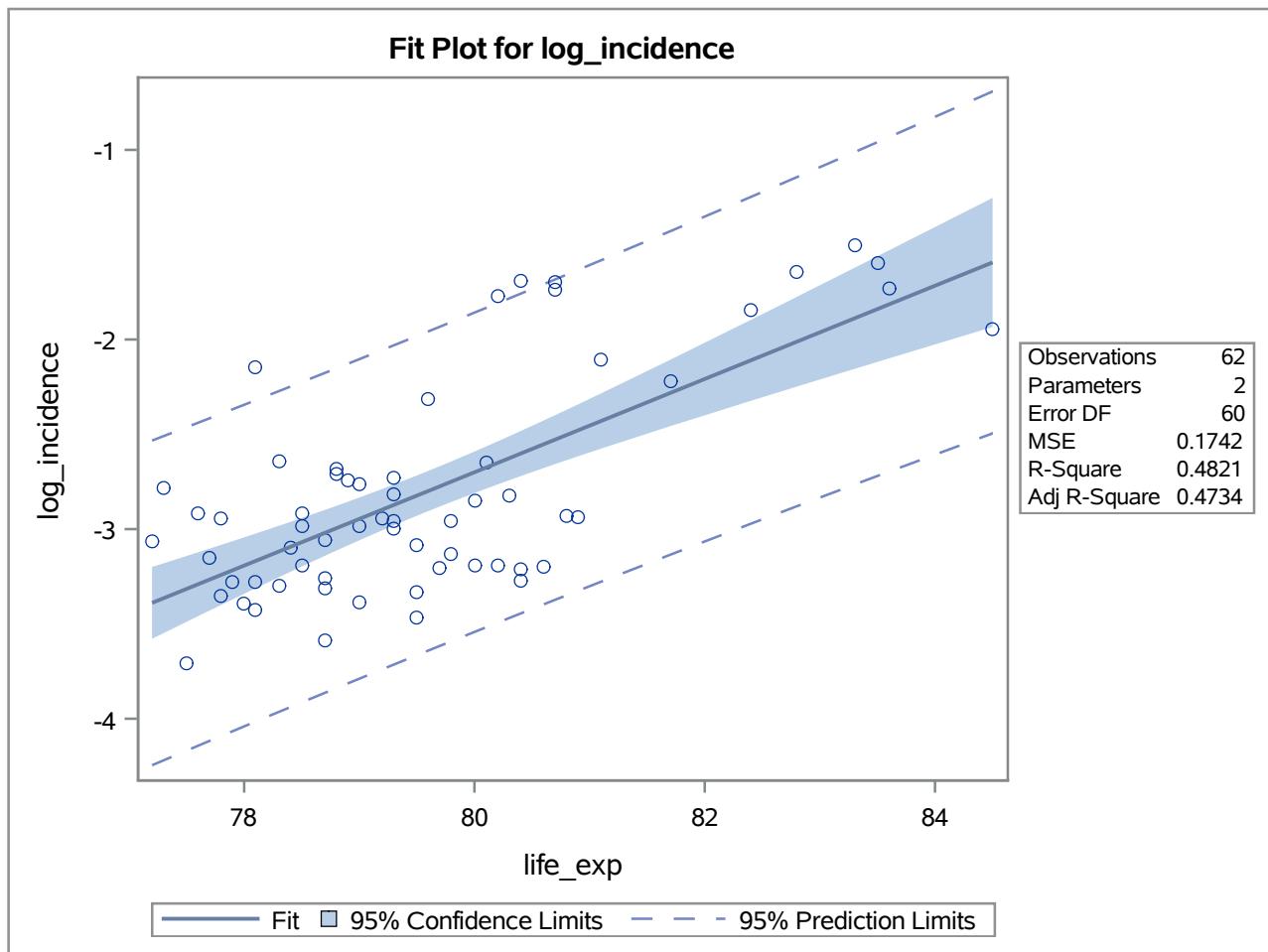
**The REG Procedure**  
**Model: MODEL9**  
**Dependent Variable: log\_incidence**



The REG Procedure  
Model: MODEL9  
Dependent Variable: log\_incidence



The REG Procedure  
Model: MODEL9  
Dependent Variable: log\_incidence



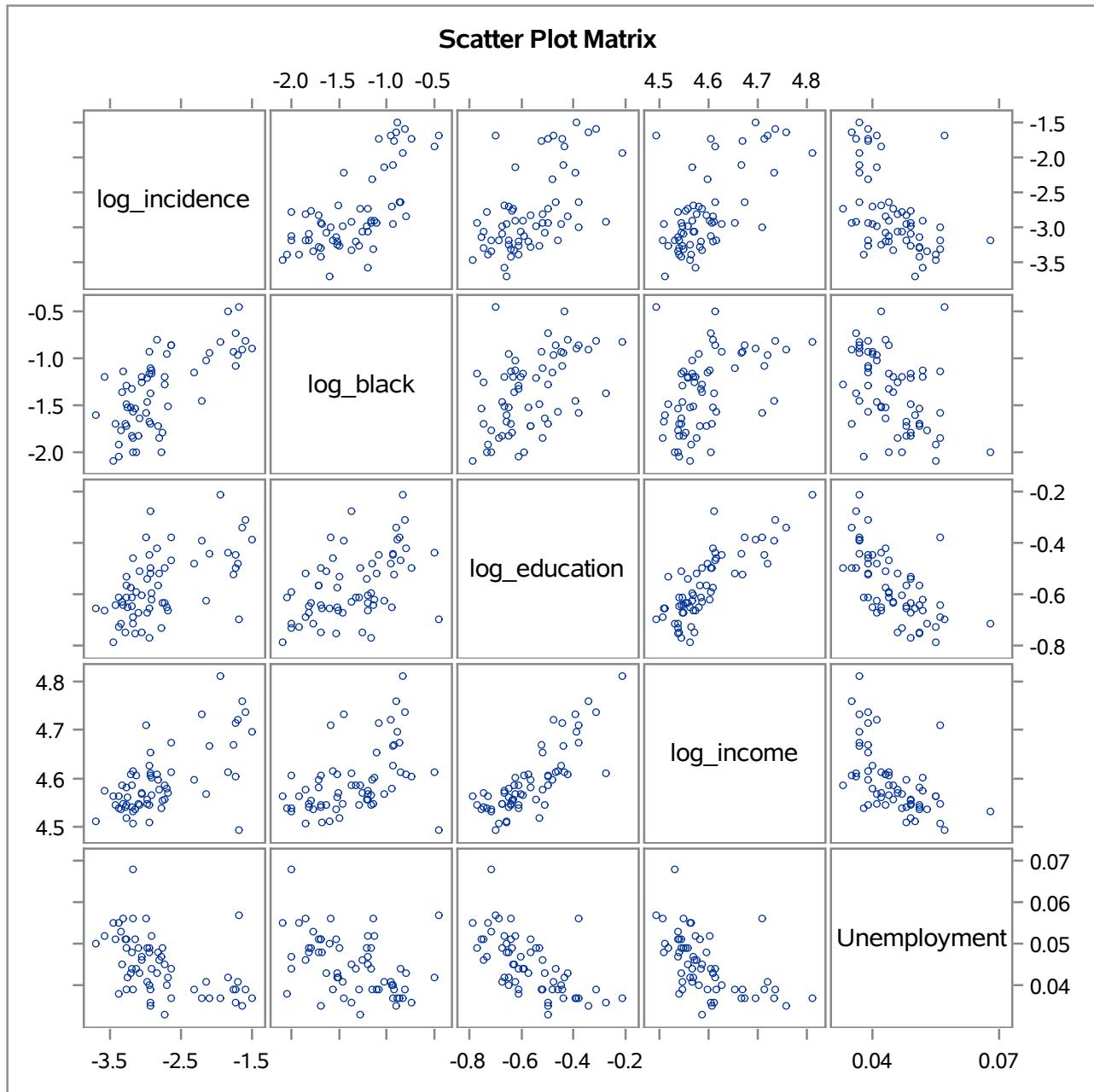
### The CORR Procedure

<b>5 Variables:</b>	log_incidence	log_black	log_education	log_income	Unemployment
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Simple Statistics						
Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
<b>log_incidence</b>	62	-2.80241	0.57519	-173.74969	-3.70906	-1.50162
<b>log_black</b>	62	-1.35680	0.40852	-84.12163	-2.09691	-0.44977
<b>log_education</b>	62	-0.56737	0.13047	-35.17708	-0.78516	-0.21396
<b>log_income</b>	62	4.59427	0.06759	284.84451	4.49361	4.81062
<b>Unemployment</b>	62	0.04490	0.00696	2.78400	0.03300	0.06800

Pearson Correlation Coefficients, N = 62 Prob >  r  under H0: Rho=0						
	log_incidence	log_black	log_education	log_income	Unemployment	
<b>log_incidence</b>	1.00000	0.68868 <.0001	0.56916 <.0001	0.65016 <.0001	-0.49278 <.0001	
<b>log_black</b>	0.68868 <.0001	1.00000	0.49515 <.0001	0.46601 0.0001	-0.42814 0.0005	
<b>log_education</b>	0.56916 <.0001	0.49515 <.0001	1.00000	0.80911 <.0001	-0.63680 <.0001	
<b>log_income</b>	0.65016 <.0001	0.46601 0.0001	0.80911 <.0001	1.00000	-0.55273 <.0001	
<b>Unemployment</b>	-0.49278 <.0001	-0.42814 0.0005	-0.63680 <.0001	-0.55273 <.0001	1.00000	

## The CORR Procedure



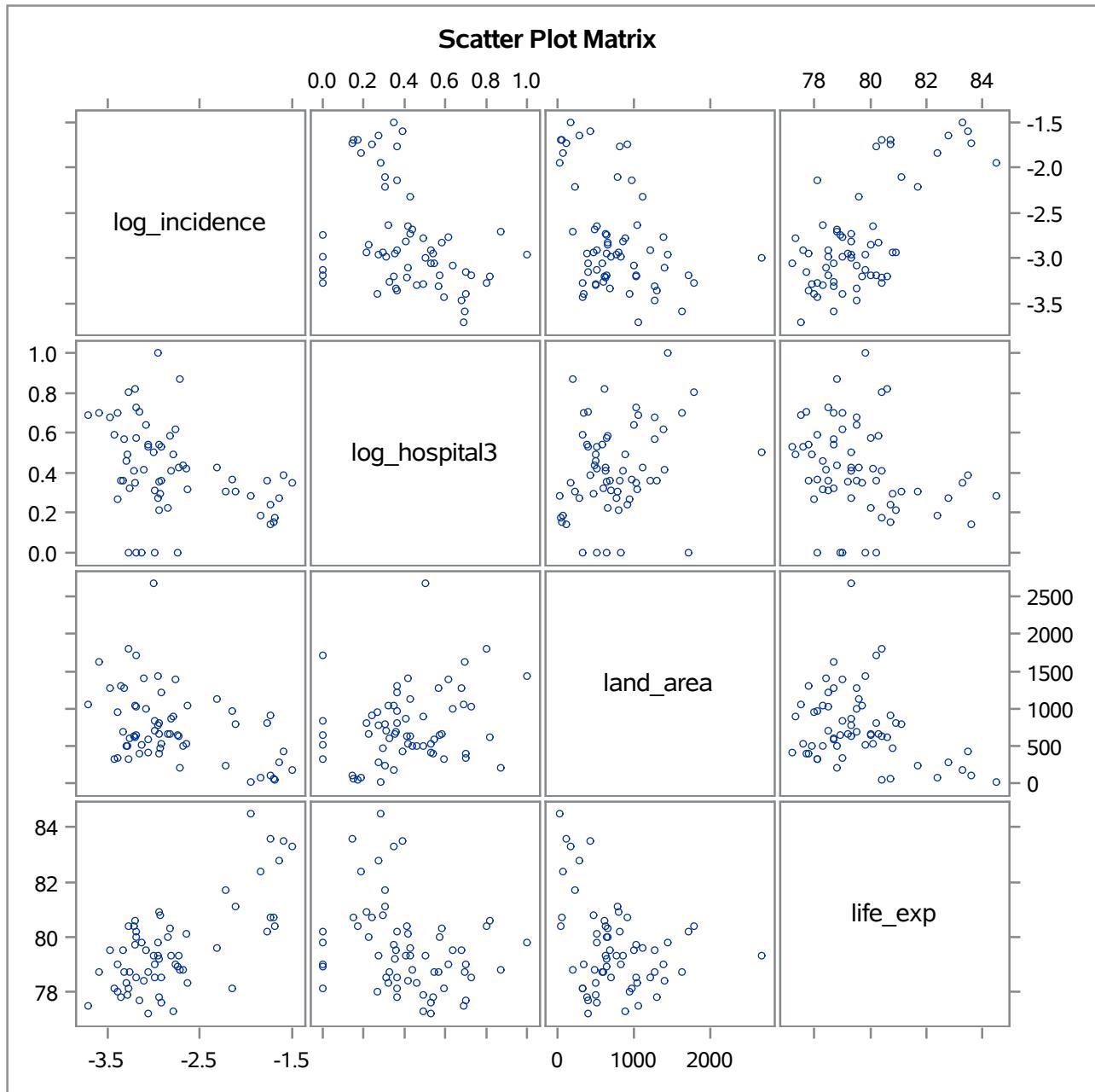
## The CORR Procedure

<b>4 Variables:</b>	log_incidence	log_hospital3	land_area	life_exp
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Simple Statistics						
Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
log_incidence	62	-2.80241	0.57519	-173.74969	-3.70906	-1.50162
log_hospital3	62	0.41668	0.22248	25.83397	0	0.99927
land_area	62	760.10371	490.80412	47126	22.83000	2680
life_exp	62	79.58548	1.62368	4934	77.20000	84.50000

Pearson Correlation Coefficients, N = 62 Prob >  r  under H0: Rho=0					
	log_incidence	log_hospital3	land_area	life_exp	
log_incidence	1.00000	-0.37317 0.0028	-0.41983 0.0007	0.69431 <.0001	
log_hospital3	-0.37317 0.0028	1.00000	0.26041 0.0409	-0.27798 0.0287	
land_area	-0.41983 0.0007	0.26041 0.0409	1.00000	-0.31403 0.0129	
life_exp	0.69431 <.0001	-0.27798 0.0287	-0.31403 0.0129	1.00000	

## The CORR Procedure



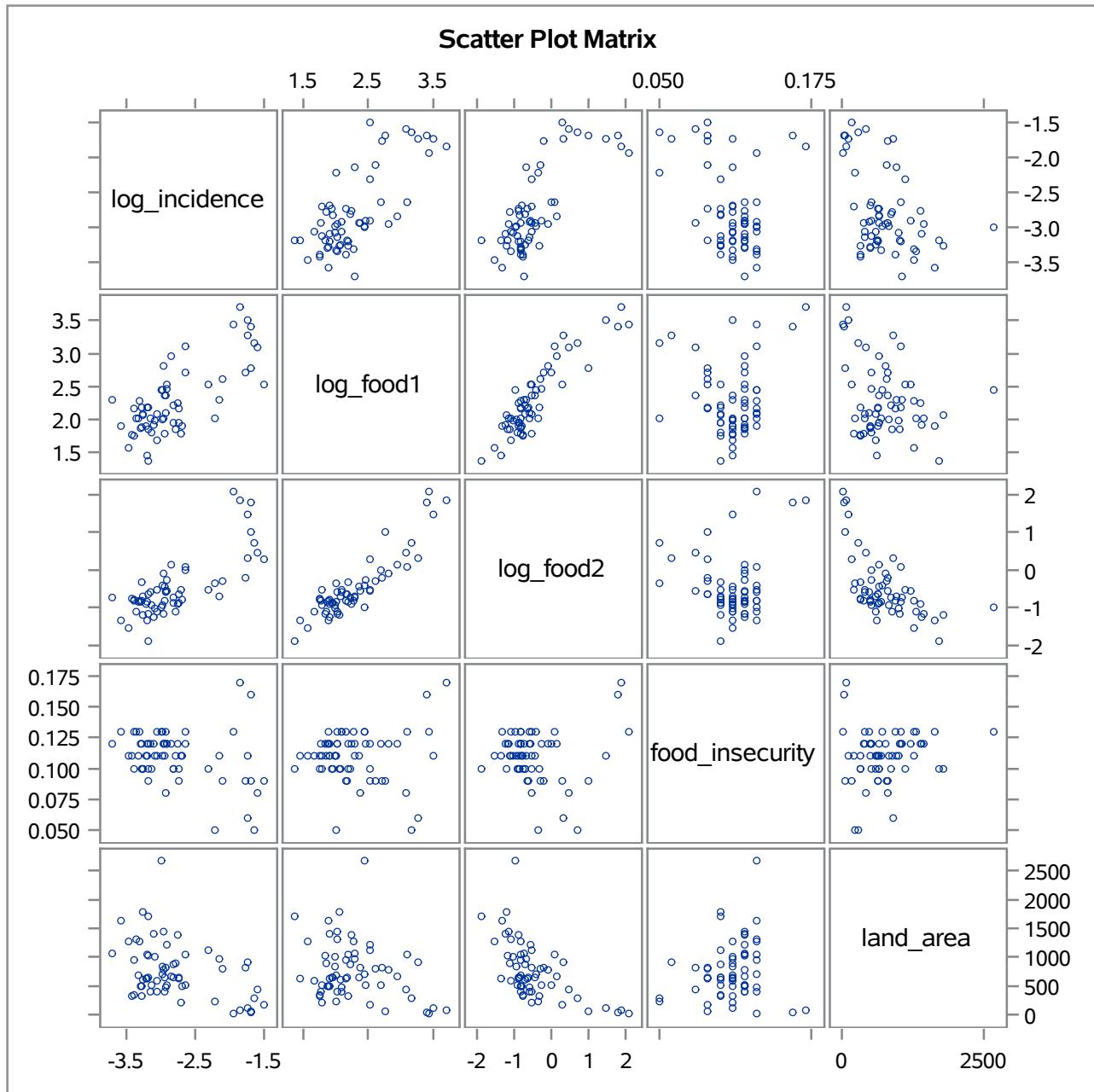
### The CORR Procedure

<b>5 Variables:</b>	log_incidence	log_food1	log_food2	food_insecurity	land_area
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Simple Statistics						
Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
log_incidence	62	-2.80241	0.57519	-173.74969	-3.70906	-1.50162
log_food1	62	2.27758	0.52782	141.21004	1.36173	3.70825
log_food2	62	-0.48171	0.79602	-29.86624	-1.87322	2.07797
food_insecurity	62	0.11016	0.02084	6.83000	0.05000	0.17000
land_area	62	760.10371	490.80412	47126	22.83000	2680

Pearson Correlation Coefficients, N = 62 Prob >  r  under H0: Rho=0						
	log_incidence	log_food1	log_food2	food_insecurity	land_area	
log_incidence	1.00000	0.73781 <.0001	0.76874 <.0001	-0.29145 0.0215	-0.41983 0.0007	
log_food1	0.73781 <.0001	1.00000	0.90196 <.0001	0.07327 0.5714	-0.28216 0.0263	
log_food2	0.76874 <.0001	0.90196 <.0001	1.00000	0.08151 0.5288	-0.60174 <.0001	
food_insecurity	-0.29145 0.0215	0.07327 0.5714	0.08151 0.5288	1.00000	0.12043 0.3512	
land_area	-0.41983 0.0007	-0.28216 0.0263	-0.60174 <.0001	0.12043 0.3512	1.00000	

## The CORR Procedure



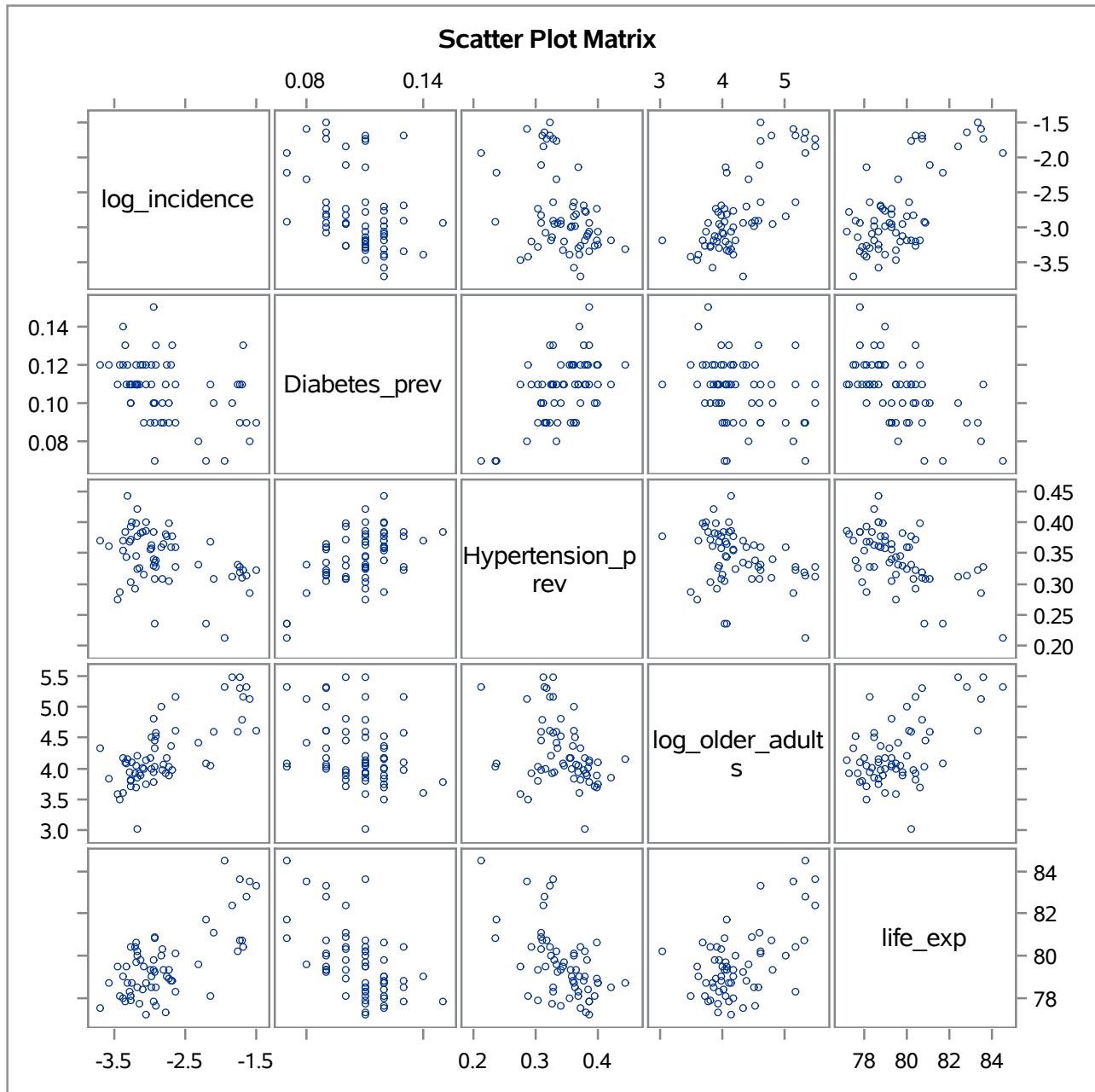
## The CORR Procedure

<b>5 Variables:</b>	log_incidence	Diabetes_prev	Hypertension_prev	log_older_adults	life_exp
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Simple Statistics						
Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
log_incidence	62	-2.80241	0.57519	-173.74969	-3.70906	-1.50162
Diabetes_prev	62	0.10694	0.01636	6.63000	0.07000	0.15000
Hypertension_prev	62	0.34305	0.04410	21.26900	0.21200	0.44300
log_older_adults	62	4.25480	0.52911	263.79750	3.02776	5.47845
life_exp	62	79.58548	1.62368	4934	77.20000	84.50000

Pearson Correlation Coefficients, N = 62 Prob >  r  under H0: Rho=0						
	log_incidence	Diabetes_prev	Hypertension_prev	log_older_adults	life_exp	
log_incidence	1.00000	-0.39762 0.0014	-0.40995 0.0009	0.74114 <.0001	0.69431 <.0001	
Diabetes_prev	-0.39762 0.0014	1.00000	0.55837 <.0001	-0.32378 0.0103	-0.56346 <.0001	
Hypertension_prev	-0.40995 0.0009	0.55837 <.0001	1.00000	-0.35652 0.0045	-0.56995 <.0001	
log_older_adults	0.74114 <.0001	-0.32378 0.0103	-0.35652 0.0045	1.00000	0.56027 <.0001	
life_exp	0.69431 <.0001	-0.56346 <.0001	-0.56995 <.0001	0.56027 <.0001	1.00000	

## The CORR Procedure



**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: log\_incidence**

Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	13	15.86511	1.22039	13.57	<.0001
Error	48	4.31669	0.08993		
Corrected Total	61	20.18180			

Root MSE	0.29989	R-Square	0.7861
Dependent Mean	-2.80241	Adj R-Sq	0.7282
Coeff Var	-10.70096		

Parameter Estimates						
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t	Variance Inflation
Intercept	1	-11.89324	7.94841	-1.50	0.1411	0
log_black	1	0.40308	0.17082	2.36	0.0224	3.30305
log_education	1	-1.20526	0.81842	-1.47	0.1474	7.73319
log_income	1	0.79093	1.29527	0.61	0.5443	5.19877
Unemployment	1	-1.13082	9.95432	-0.11	0.9100	3.25195
log_older_adults	1	0.10349	0.31803	0.33	0.7463	19.20737
log_hospital3	1	-0.03509	0.21039	-0.17	0.8682	1.48619
food_insecurity	1	-8.68111	3.04219	-2.85	0.0064	2.72698
log_food1	1	-0.09936	0.51853	-0.19	0.8489	50.80906
log_food2	1	0.43145	0.28915	1.49	0.1422	35.93501
Diabetes_prev	1	-2.58414	4.13939	-0.62	0.5354	3.10901
Hypertension_prev	1	0.15348	1.26691	0.12	0.9041	2.11768
land_area	1	0.00017931	0.00021706	0.83	0.4128	7.69821
life_exp	1	0.08071	0.04327	1.87	0.0683	3.34820

**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: log\_incidence**

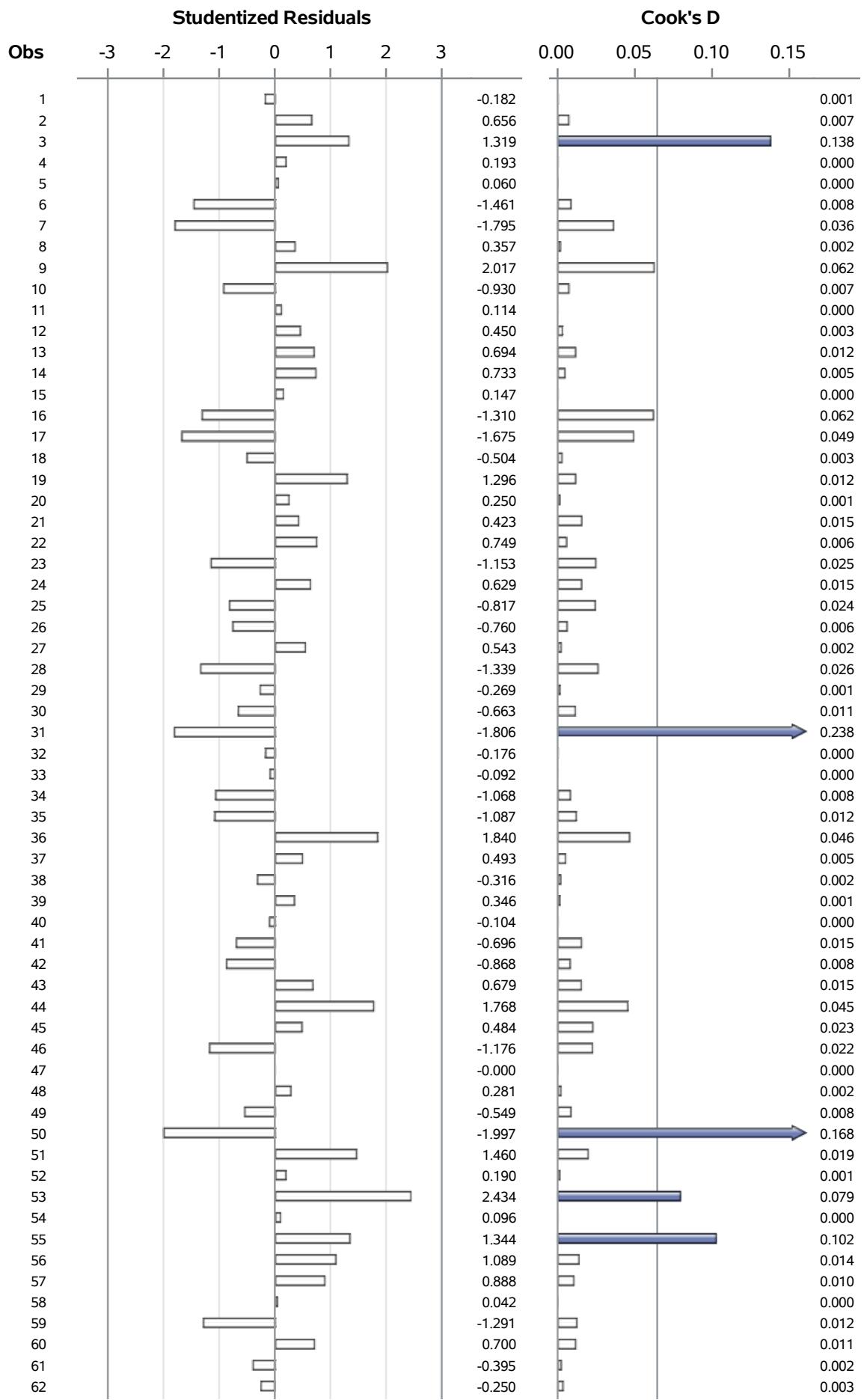
Output Statistics							
Obs	Dependent Variable	Predicted Value	Std Error Mean Predict	Residual	Std Error Residual	Student Residual	Cook's D
1	-2.65	-2.6013	0.1332	-0.0490	0.269	-0.182	0.001
2	-3.19	-3.3671	0.1297	0.1775	0.270	0.656	0.007
3	-1.69	-1.9605	0.2174	0.2725	0.207	1.319	0.138
4	-2.98	-3.0376	0.1081	0.0539	0.280	0.193	0.000
5	-3.35	-3.3709	0.1047	0.0168	0.281	0.060	0.000
6	-3.33	-2.9045	0.0689	-0.4265	0.292	-1.461	0.008
7	-3.71	-3.2083	0.1102	-0.5007	0.279	-1.795	0.036
8	-3.06	-3.1610	0.1158	0.0987	0.277	0.357	0.002
9	-2.78	-3.3338	0.1259	0.5489	0.272	2.017	0.062
10	-3.20	-2.9402	0.0966	-0.2640	0.284	-0.930	0.007
11	-2.73	-2.7635	0.1224	0.0312	0.274	0.114	0.000
12	-3.28	-3.4041	0.1267	0.1224	0.272	0.450	0.003
13	-2.96	-3.1384	0.1506	0.1800	0.259	0.694	0.012
14	-2.11	-2.3167	0.0990	0.2075	0.283	0.733	0.005
15	-2.64	-2.6788	0.1353	0.0392	0.268	0.147	0.000
16	-3.27	-2.9504	0.1736	-0.3203	0.245	-1.310	0.062
17	-3.59	-3.1373	0.1330	-0.4501	0.269	-1.675	0.049
18	-3.30	-3.1568	0.1083	-0.1409	0.280	-0.504	0.003
19	-2.68	-3.0552	0.0892	0.3710	0.286	1.296	0.012
20	-2.74	-2.8088	0.1362	0.0667	0.267	0.250	0.001
21	-3.19	-3.2752	0.2219	0.0853	0.202	0.423	0.015
22	-3.10	-3.3116	0.1045	0.2106	0.281	0.749	0.006
23	-3.32	-3.0076	0.1359	-0.3082	0.267	-1.153	0.025
24	-1.84	-1.9953	0.1780	0.1518	0.241	0.629	0.015
25	-3.47	-3.2686	0.1739	-0.1995	0.244	-0.817	0.024
26	-3.21	-2.9968	0.1065	-0.2131	0.280	-0.760	0.006
27	-2.82	-2.9798	0.0910	0.1551	0.286	0.543	0.002
28	-2.85	-2.4814	0.1227	-0.3665	0.274	-1.339	0.026
29	-3.15	-3.0783	0.1363	-0.0719	0.267	-0.269	0.001
30	-1.65	-1.4756	0.1542	-0.1706	0.257	-0.663	0.011
31	-1.95	-1.5644	0.2132	-0.3810	0.211	-1.806	0.238
32	-2.92	-2.8687	0.1257	-0.0478	0.272	-0.176	0.000
33	-2.92	-2.8908	0.1372	-0.0245	0.267	-0.092	0.000

**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: log\_incidence**

Output Statistics							
Obs	Dependent Variable	Predicted Value	Std Error Mean Predict	Residual	Std Error Residual	Student Residual	Cook's D
34	-2.96	-2.6521	0.0897	-0.3056	0.286	-1.068	0.008
35	-3.19	-2.8847	0.1057	-0.3049	0.281	-1.087	0.012
36	-1.77	-2.2758	0.1203	0.5055	0.275	1.840	0.046
37	-2.95	-3.0758	0.1429	0.1299	0.264	0.493	0.005
38	-3.39	-3.3056	0.1343	-0.0847	0.268	-0.316	0.002
39	-3.09	-3.1829	0.1086	0.0968	0.280	0.346	0.001
40	-2.22	-2.1918	0.1657	-0.0259	0.250	-0.104	0.000
41	-1.73	-1.5603	0.1655	-0.1740	0.250	-0.696	0.015
42	-2.94	-2.7007	0.1071	-0.2431	0.280	-0.868	0.008
43	-1.70	-1.8641	0.1680	0.1686	0.248	0.679	0.015
44	-1.50	-1.9850	0.1232	0.4834	0.273	1.768	0.045
45	-3.00	-3.0934	0.2276	0.0945	0.195	0.484	0.023
46	-2.94	-2.6194	0.1290	-0.3183	0.271	-1.176	0.022
47	-2.71	-2.7125	0.2155	-6.963E-6	0.209	-0.000	0.000
48	-3.20	-3.2700	0.1535	0.0723	0.258	0.281	0.002
49	-3.43	-3.2879	0.1595	-0.1393	0.254	-0.549	0.008
50	-3.28	-2.8021	0.1828	-0.4747	0.238	-1.997	0.168
51	-2.76	-3.1743	0.1009	0.4122	0.282	1.460	0.019
52	-1.74	-1.7874	0.1630	0.0479	0.252	0.190	0.001
53	-2.14	-2.8145	0.1189	0.6702	0.275	2.434	0.079
54	-3.13	-3.1560	0.1530	0.0247	0.258	0.096	0.000
55	-2.93	-3.2332	0.1994	0.3011	0.224	1.344	0.102
56	-2.32	-2.6189	0.1117	0.3032	0.278	1.089	0.014
57	-2.82	-3.0605	0.1171	0.2451	0.276	0.888	0.010
58	-2.98	-2.9960	0.1316	0.0113	0.269	0.042	0.000
59	-3.26	-2.8928	0.0913	-0.3687	0.286	-1.291	0.012
60	-1.59	-1.7770	0.1490	0.1822	0.260	0.700	0.011
61	-3.06	-2.9528	0.1239	-0.1079	0.273	-0.395	0.002
62	-3.39	-3.3326	0.1979	-0.0563	0.225	-0.250	0.003

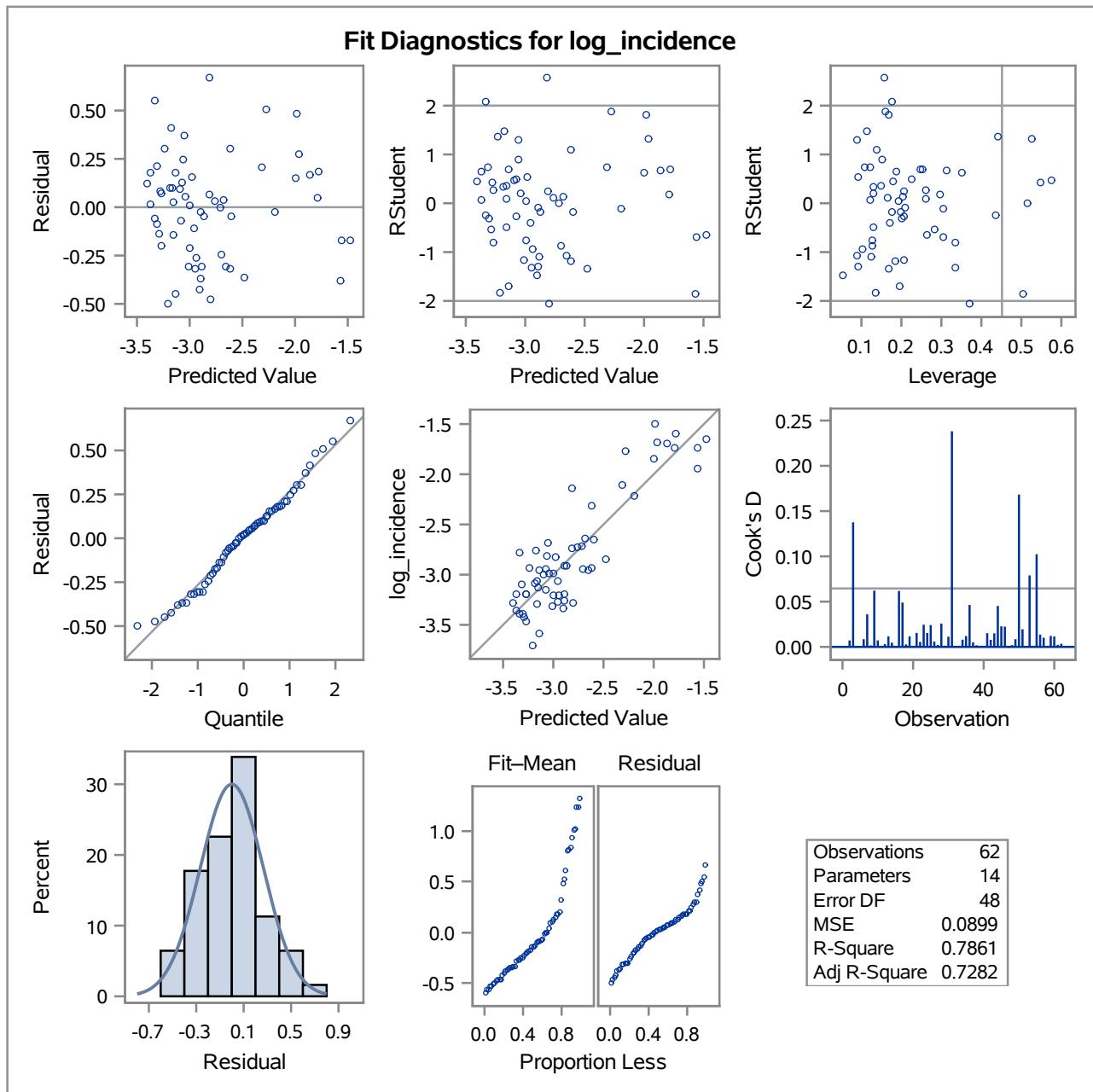
**The REG Procedure  
Model: MODEL1  
Dependent Variable: log\_incidence**

### Studentized Residuals and Cook's D for log\_incidence

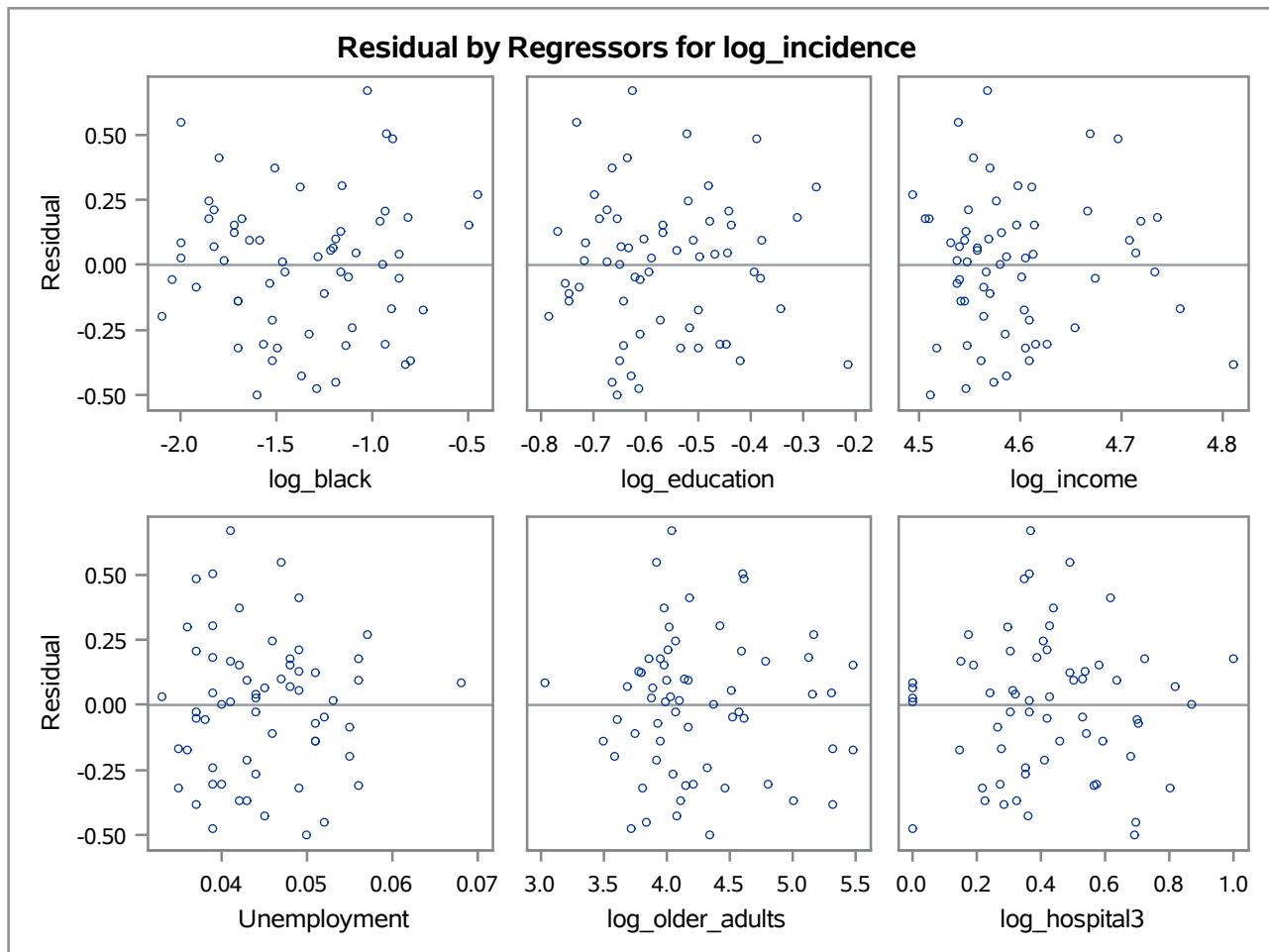


**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: log\_incidence**

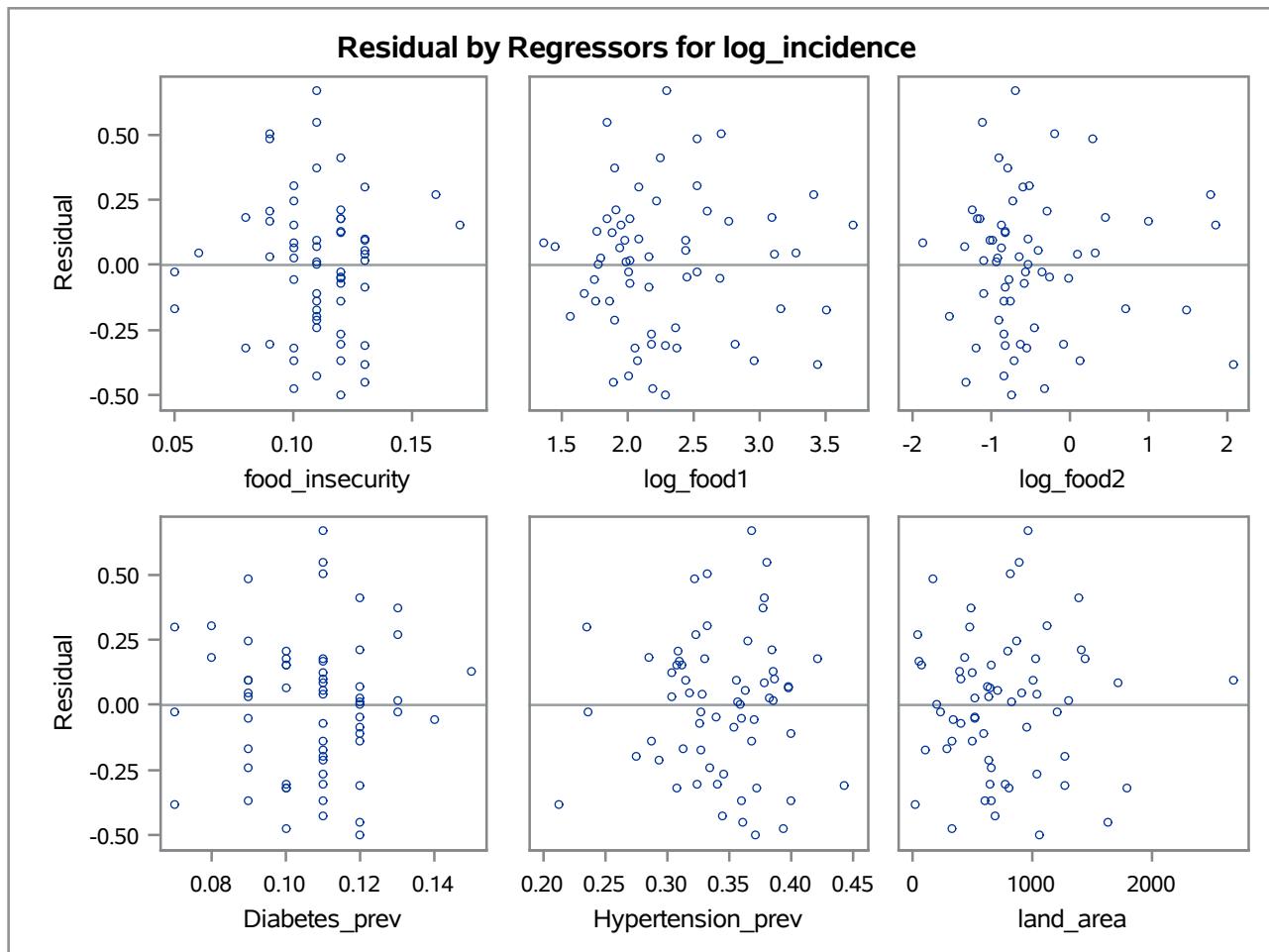
Sum of Residuals	0
Sum of Squared Residuals	4.31669
Predicted Residual SS (PRESS)	7.29353



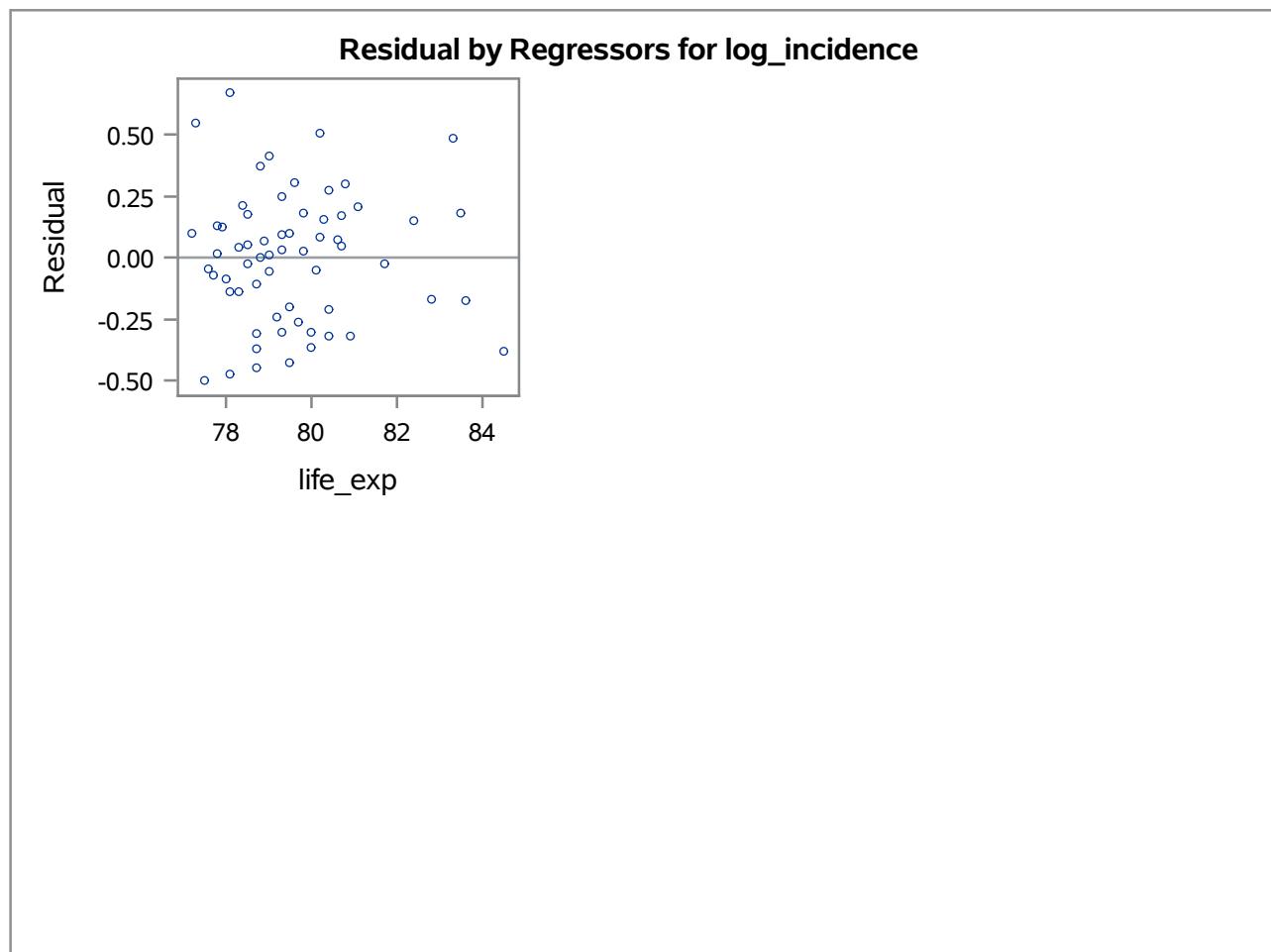
The REG Procedure  
Model: MODEL1



The REG Procedure  
Model: MODEL1



The REG Procedure  
Model: MODEL1



**The SURVEYSELECT Procedure**

Selection Method	Simple Random Sampling
<b>Input Data Set</b>	COVID_STANDARDIZED
<b>Random Number Seed</b>	123
<b>Sampling Rate</b>	0.7
<b>Sample Size</b>	44
<b>Selection Probability</b>	0.709677
<b>Sampling Weight</b>	0
<b>Output Data Set</b>	TRAINTEST

### The GLMSELECT Procedure

<b>Data Set</b>	WORK.TRAINTEST
<b>Dependent Variable</b>	log_incidence
<b>Selection Method</b>	LAR
<b>Stop Criterion</b>	None
<b>Choose Criterion</b>	Cross Validation
<b>Cross Validation Method</b>	Random
<b>Cross Validation Fold</b>	10
<b>Effect Hierarchy Enforced</b>	None
<b>Random Number Seed</b>	123

<b>Number of Observations Read</b>	62
<b>Number of Observations Used</b>	62
<b>Number of Observations Used for Training</b>	44
<b>Number of Observations Used for Testing</b>	18

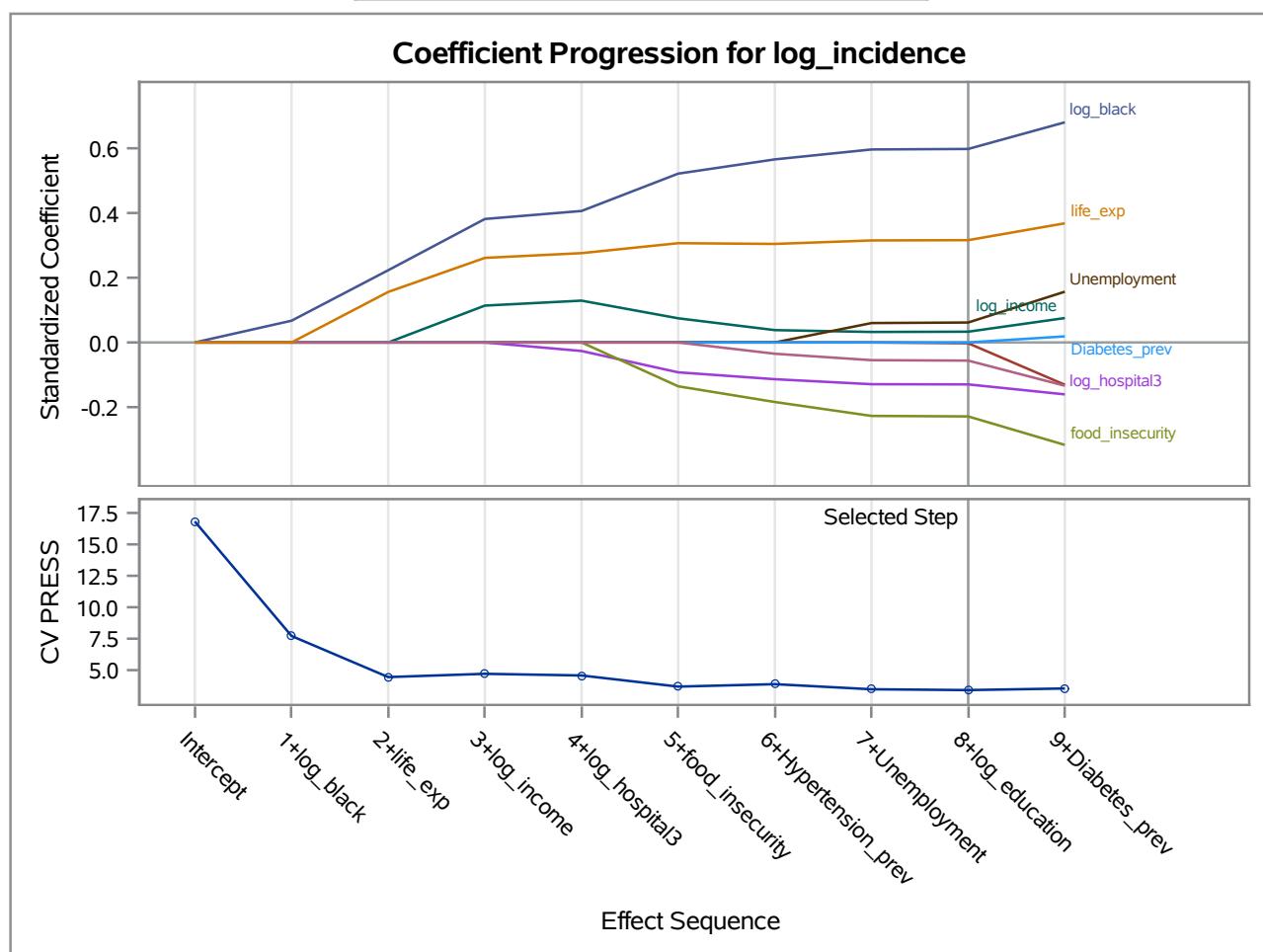
<b>Dimensions</b>	
<b>Number of Effects</b>	10
<b>Number of Parameters</b>	10

### The GLMSELECT Procedure

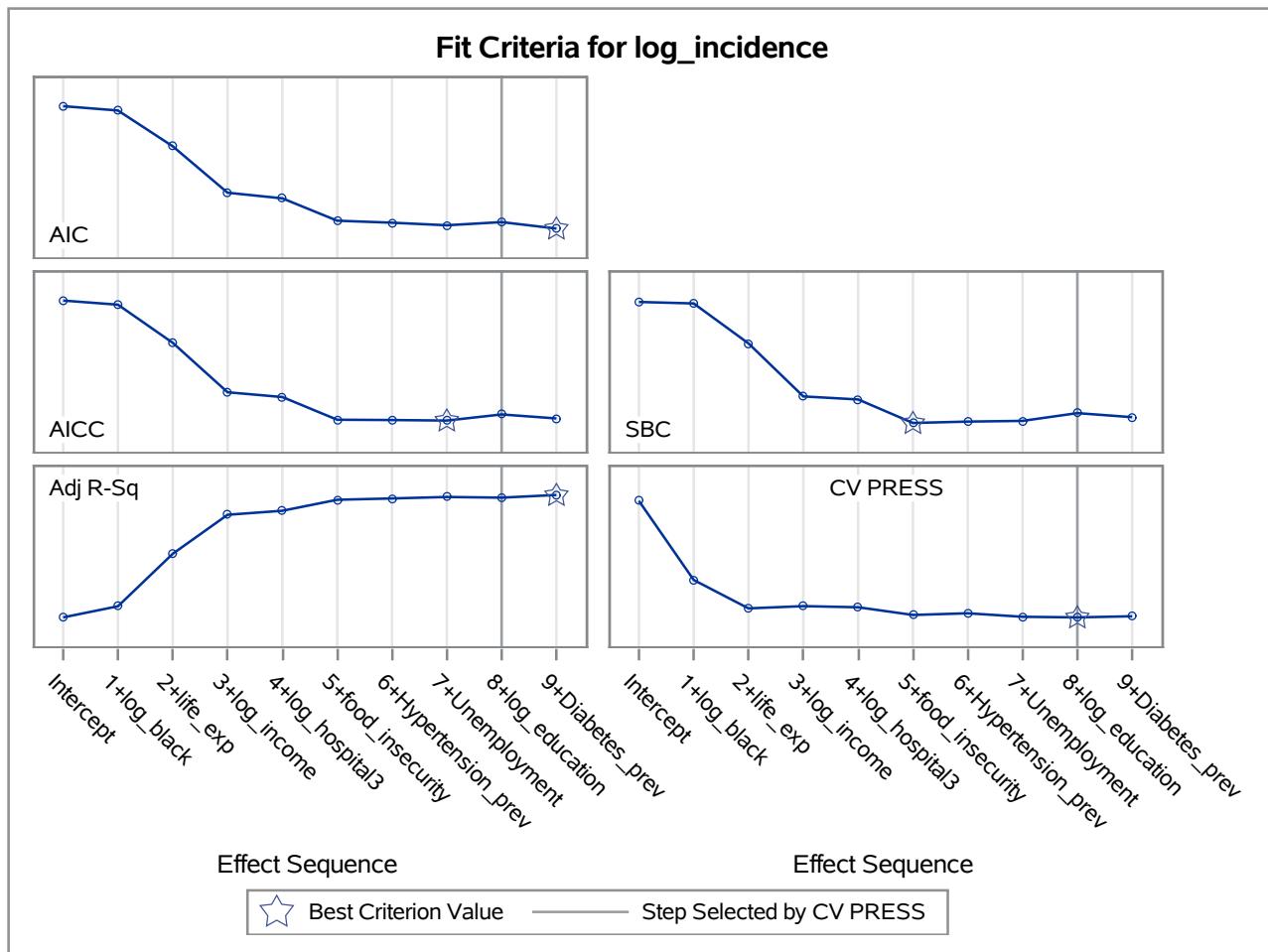
LAR Selection Summary					
Step	Effect Entered	Number Effects In	ASE	Test ASE	CV PRESS
0	Intercept	1	0.3642	0.2398	16.8202
1	log_black	2	0.3291	0.2144	7.7162
2	life_exp	3	0.1981	0.1431	4.4469
3	log_income	4	0.1041	0.1328	4.7057
4	log_hospital3	5	0.0925	0.1415	4.5732
5	food_insecurity	6	0.0662	0.1762	3.6880
6	Hypertension_prev	7	0.0617	0.1973	3.8824
7	Unemployment	8	0.0570	0.2106	3.4771
8	log_education	9	0.0568	0.2113	3.4111*
9	Diabetes_prev	10	0.0499	0.2558	3.5390

\* Optimal Value of Criterion

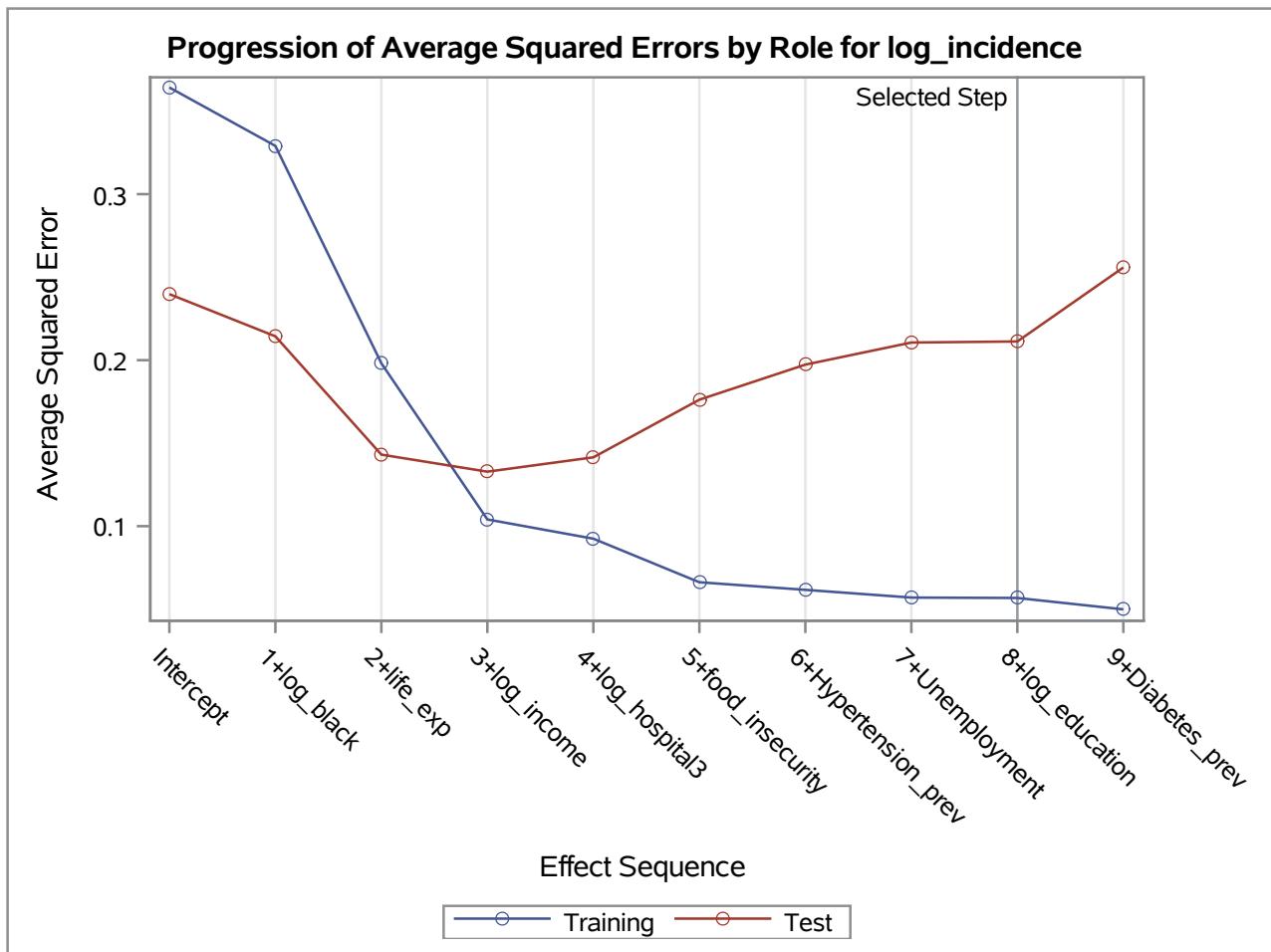
Selection stopped because all effects are in the final model.



## The GLMSELECT Procedure



## The GLMSELECT Procedure



## The GLMSELECT Procedure Selected Model

**The selected model, based on Cross Validation, is the model at Step 8.**

<b>Effects:</b>	Intercept log_black log_education log_income Unemployment log_hospital3 food_insecurity Hypertension_prev life_exp
-----------------	--

Analysis of Variance				
Source	DF	Sum of Squares	Mean Square	F Value
<b>Model</b>	8	13.52897	1.69112	23.70
<b>Error</b>	35	2.49760	0.07136	
<b>Corrected Total</b>	43	16.02657		

<b>Root MSE</b>	0.26713
<b>Dependent Mean</b>	-2.75150
<b>R-Square</b>	0.8442
<b>Adj R-Sq</b>	0.8085
<b>AIC</b>	-62.22989
<b>AICC</b>	-55.56323
<b>SBC</b>	-92.17219
<b>ASE (Train)</b>	0.05676
<b>ASE (Test)</b>	0.21126
<b>CV PRESS</b>	3.41106

## The GLMSELECT Procedure Selected Model

Parameter Estimates		
Parameter	DF	Estimate
Intercept	1	-2.859272
log_black	1	0.381700
log_education	1	-0.001526
log_income	1	0.019911
Unemployment	1	0.041074
log_hospital3	1	-0.083150
food_insecurity	1	-0.125872
Hypertension_prev	1	-0.032725
life_exp	1	0.184619

### The GLMSELECT Procedure

<b>Data Set</b>	WORK.COVID_STANDARDIZED
<b>Dependent Variable</b>	log_incidence
<b>Selection Method</b>	LASSO
<b>Stop Criterion</b>	None
<b>Choose Criterion</b>	BIC
<b>Effect Hierarchy Enforced</b>	None

<b>Number of Observations Read</b>	62
<b>Number of Observations Used</b>	62

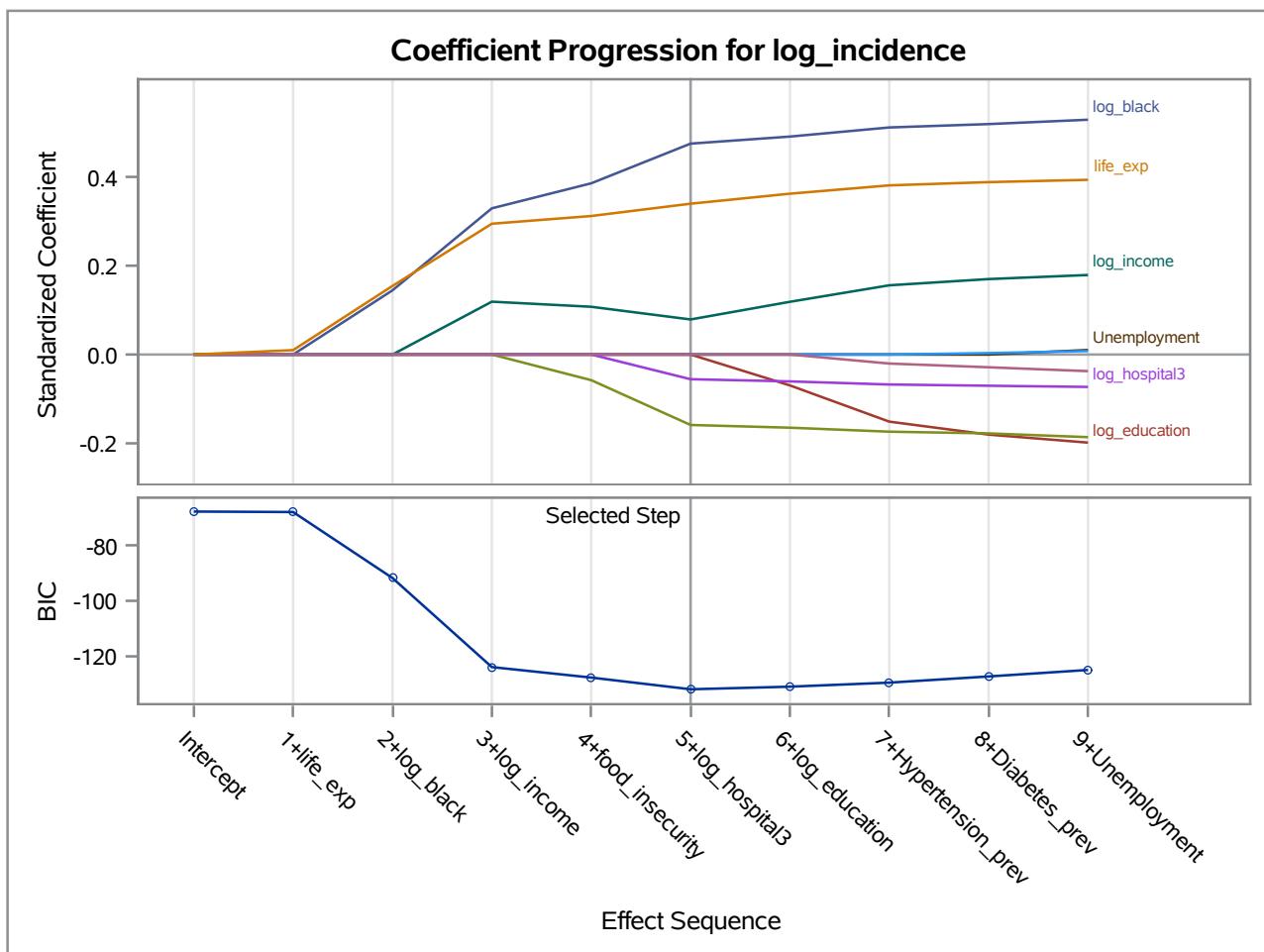
Dimensions	
<b>Number of Effects</b>	10
<b>Number of Parameters</b>	10

### The GLMSELECT Procedure

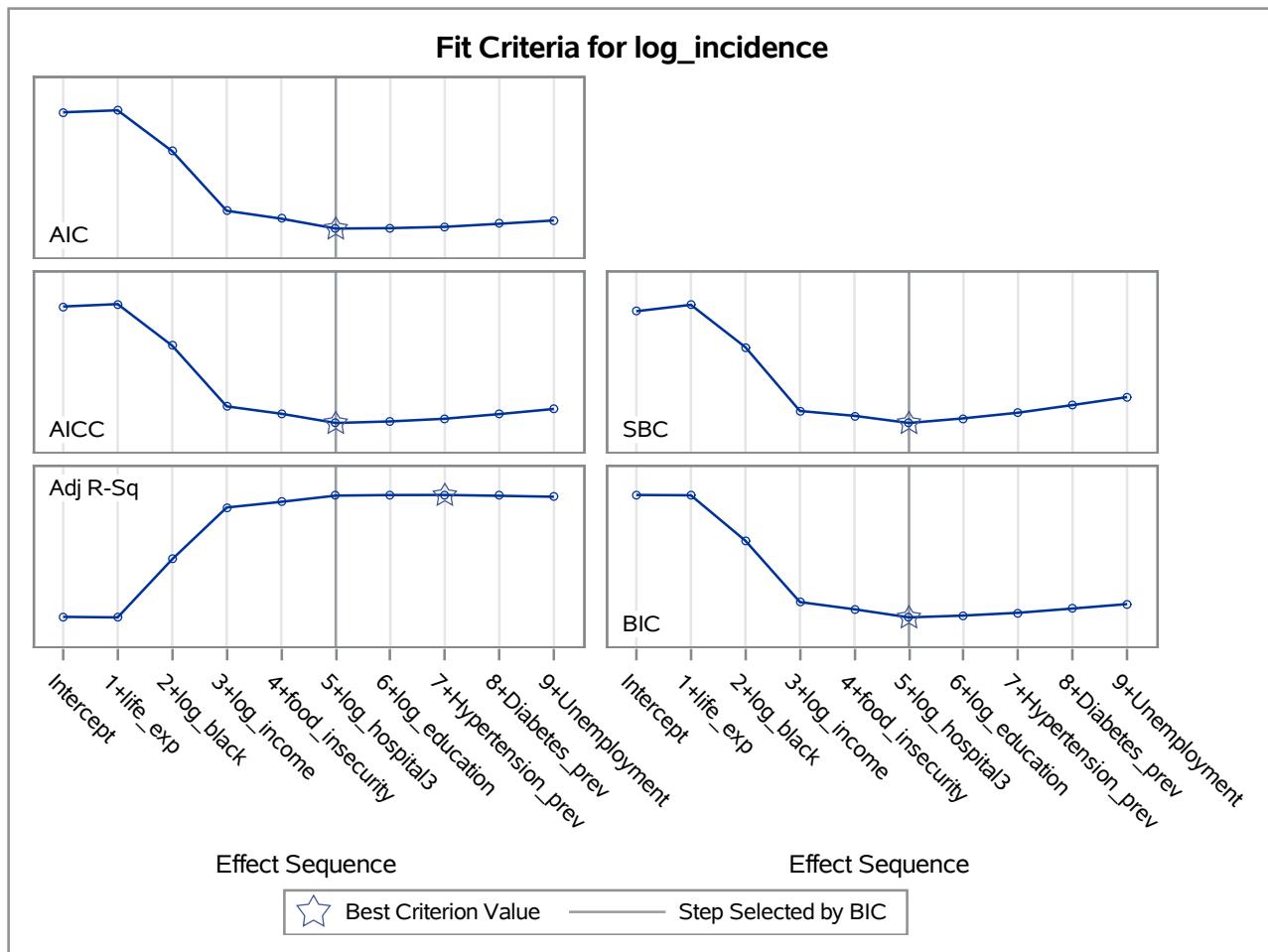
LASSO Selection Summary				
Step	Effect Entered	Effect Removed	Number Effects In	BIC
0	Intercept		1	-67.8594
1	life_exp		2	-68.0343
2	log_black		3	-91.7964
3	log_income		4	-123.8619
4	food_insecurity		5	-127.6400
5	log_hospital3		6	-131.8563*
6	log_education		7	-130.9182
7	Hypertension_prev		8	-129.4700
8	Diabetes_prev		9	-127.2390
9	Unemployment		10	-124.8998

\* Optimal Value of Criterion

Selection stopped because all effects are in the final model.



### The GLMSELECT Procedure



## The GLMSELECT Procedure



## The GLMSELECT Procedure Selected Model

**The selected model, based on BIC, is the model at Step 5.**

<b>Effects:</b>	Intercept log_black log_income log_hospital3 food_insecurity life_exp
-----------------	---

Analysis of Variance				
Source	DF	Sum of Squares	Mean Square	F Value
<b>Model</b>	5	14.42816	2.88563	28.09
<b>Error</b>	56	5.75364	0.10274	
<b>Corrected Total</b>	61	20.18180		

<b>Root MSE</b>	0.32054
<b>Dependent Mean</b>	-2.80241
<b>R-Square</b>	0.7149
<b>Adj R-Sq</b>	0.6895
<b>AIC</b>	-71.39267
<b>AICC</b>	-69.31860
<b>BIC</b>	-131.85633
<b>C(p)</b>	4.82439
<b>SBC</b>	-122.62987

Parameter Estimates		
Parameter	DF	Estimate
<b>Intercept</b>	1	-2.802414
<b>log_black</b>	1	0.273196
<b>log_income</b>	1	0.045426
<b>log_hospital3</b>	1	-0.032012
<b>food_insecurity</b>	1	-0.091257
<b>life_exp</b>	1	0.195357

**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: log\_incidence**

Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	5	14.47630	2.89526	28.42	<.0001
Error	56	5.70550	0.10188		
Corrected Total	61	20.18180			

Root MSE	0.31919	R-Square	0.7173
Dependent Mean	-2.80241	Adj R-Sq	0.6921
Coeff Var	-11.38992		

Parameter Estimates						
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t	Variance Inflation
Intercept	1	-13.73658	4.15814	-3.30	0.0017	0
log_black	1	0.70908	0.12796	5.54	<.0001	1.63609
log_income	1	0.59423	0.95326	0.62	0.5356	2.48544
log_hospital3	1	-0.19001	0.19817	-0.96	0.3418	1.16381
food_insecurity	1	-5.27069	2.40387	-2.19	0.0325	1.50292
life_exp	1	0.12346	0.03510	3.52	0.0009	1.94413

**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: log\_incidence**

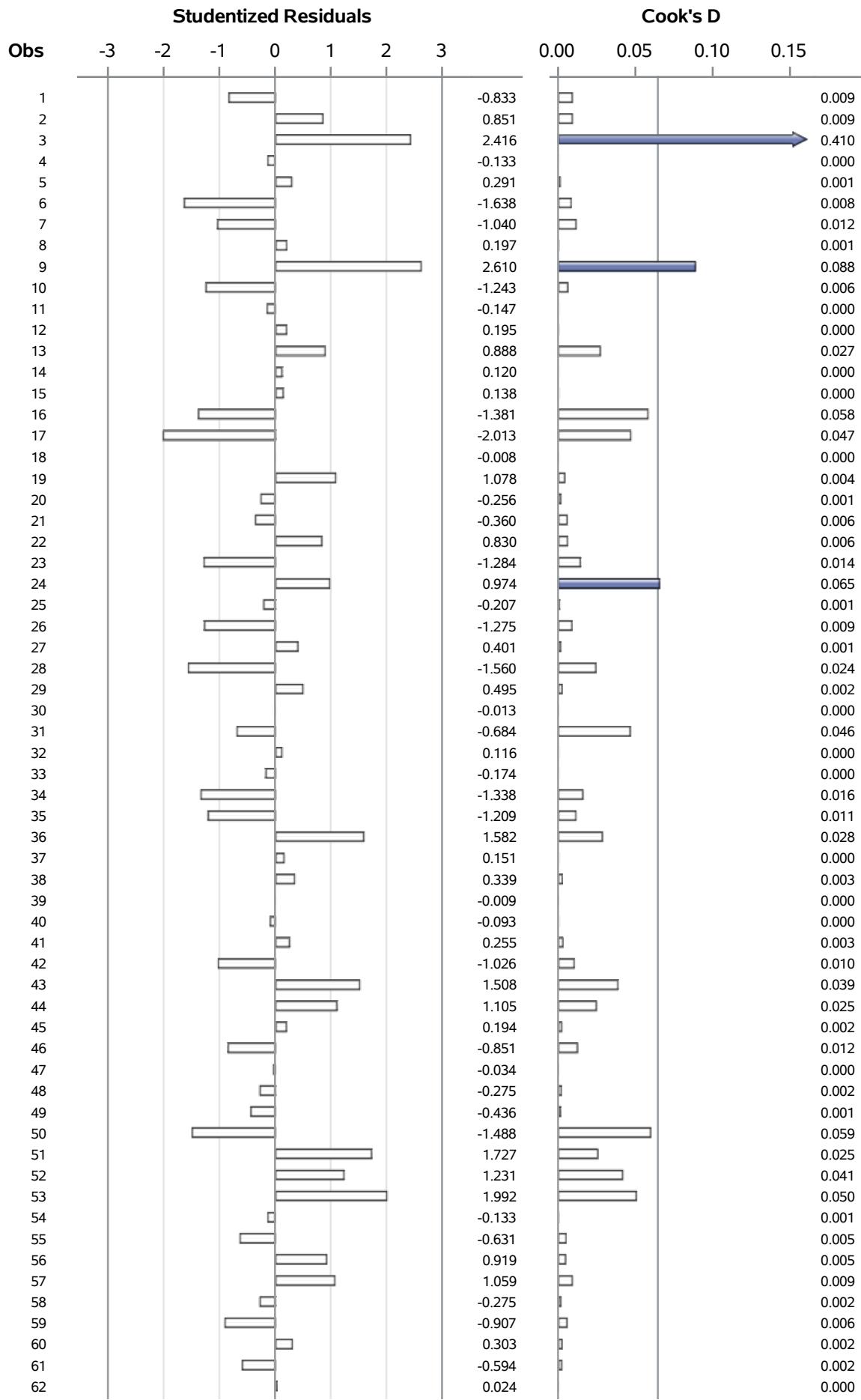
Output Statistics							
Obs	Dependent Variable	Predicted Value	Std Error Mean Predict	Residual	Std Error Residual	Student Residual	Cook's D
1	-2.65	-2.3942	0.0861	-0.2562	0.307	-0.833	0.009
2	-3.19	-3.4517	0.0840	0.2620	0.308	0.851	0.009
3	-1.69	-2.3349	0.1738	0.6468	0.268	2.416	0.410
4	-2.98	-2.9422	0.0670	-0.0415	0.312	-0.133	0.000
5	-3.35	-3.4437	0.0821	0.0896	0.308	0.291	0.001
6	-3.33	-2.8129	0.0427	-0.5181	0.316	-1.638	0.008
7	-3.71	-3.3872	0.0782	-0.3219	0.309	-1.040	0.012
8	-3.06	-3.1223	0.0929	0.0600	0.305	0.197	0.001
9	-2.78	-3.5874	0.0857	0.8025	0.307	2.610	0.088
10	-3.20	-2.8122	0.0484	-0.3921	0.316	-1.243	0.006
11	-2.73	-2.6864	0.0711	-0.0458	0.311	-0.147	0.000
12	-3.28	-3.3422	0.0778	0.0605	0.310	0.195	0.000
13	-2.96	-3.2164	0.1321	0.2580	0.291	0.888	0.027
14	-2.11	-2.1466	0.0734	0.0373	0.311	0.120	0.000
15	-2.64	-2.6816	0.0960	0.0420	0.304	0.138	0.000
16	-3.27	-2.8651	0.1252	-0.4056	0.294	-1.381	0.058
17	-3.59	-2.9659	0.0811	-0.6215	0.309	-2.013	0.047
18	-3.30	-3.2951	0.0596	-0.002617	0.314	-0.008	0.000
19	-2.68	-3.0247	0.0462	0.3405	0.316	1.078	0.004
20	-2.74	-2.6656	0.1110	-0.0765	0.299	-0.256	0.001
21	-3.19	-3.0873	0.1443	-0.1026	0.285	-0.360	0.006
22	-3.10	-3.3594	0.0698	0.2584	0.311	0.830	0.006
23	-3.32	-2.9161	0.0708	-0.3998	0.311	-1.284	0.014
24	-1.84	-2.1050	0.1726	0.2615	0.268	0.974	0.065
25	-3.47	-3.4052	0.0989	-0.0629	0.303	-0.207	0.001
26	-3.21	-2.8091	0.0562	-0.4007	0.314	-1.275	0.009
27	-2.82	-2.9495	0.0714	0.1248	0.311	0.401	0.001
28	-2.85	-2.3642	0.0757	-0.4836	0.310	-1.560	0.024
29	-3.15	-3.3036	0.0756	0.1534	0.310	0.495	0.002
30	-1.65	-1.6424	0.1402	-0.003839	0.287	-0.013	0.000
31	-1.95	-1.7726	0.1950	-0.1728	0.253	-0.684	0.046
32	-2.92	-2.9520	0.0940	0.0355	0.305	0.116	0.000
33	-2.92	-2.8608	0.0612	-0.0546	0.313	-0.174	0.000

**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: log\_incidence**

Output Statistics							
Obs	Dependent Variable	Predicted Value	Std Error Mean Predict	Residual	Std Error Residual	Student Residual	Cook's D
34	-2.96	-2.5416	0.0718	-0.4162	0.311	-1.338	0.016
35	-3.19	-2.8122	0.0672	-0.3774	0.312	-1.209	0.011
36	-1.77	-2.2588	0.0806	0.4886	0.309	1.582	0.028
37	-2.95	-2.9926	0.0782	0.0467	0.309	0.151	0.000
38	-3.39	-3.4922	0.1084	0.1019	0.300	0.339	0.003
39	-3.09	-3.0832	0.0684	-0.002949	0.312	-0.009	0.000
40	-2.22	-2.1906	0.1313	-0.0271	0.291	-0.093	0.000
41	-1.73	-1.8062	0.1497	0.0719	0.282	0.255	0.003
42	-2.94	-2.6253	0.0742	-0.3186	0.310	-1.026	0.010
43	-1.70	-2.1542	0.0969	0.4587	0.304	1.508	0.039
44	-1.50	-1.8349	0.1048	0.3333	0.302	1.105	0.025
45	-3.00	-3.0523	0.1606	0.0534	0.276	0.194	0.002
46	-2.94	-2.6788	0.0967	-0.2589	0.304	-0.851	0.012
47	-2.71	-2.7026	0.1244	-0.009895	0.294	-0.034	0.000
48	-3.20	-3.1159	0.1161	-0.0817	0.297	-0.275	0.002
49	-3.43	-3.2906	0.0625	-0.1366	0.313	-0.436	0.001
50	-3.28	-2.8360	0.1189	-0.4408	0.296	-1.488	0.059
51	-2.76	-3.2997	0.0702	0.5377	0.311	1.727	0.025
52	-1.74	-2.1040	0.1195	0.3645	0.296	1.231	0.041
53	-2.14	-2.7571	0.0847	0.6129	0.308	1.992	0.050
54	-3.13	-3.0927	0.1304	-0.0386	0.291	-0.133	0.001
55	-2.93	-2.7378	0.0846	-0.1943	0.308	-0.631	0.005
56	-2.32	-2.6041	0.0577	0.2884	0.314	0.919	0.005
57	-2.82	-3.1456	0.0683	0.3302	0.312	1.059	0.009
58	-2.98	-2.9019	0.1047	-0.0829	0.302	-0.275	0.002
59	-3.26	-2.9777	0.0627	-0.2837	0.313	-0.907	0.006
60	-1.59	-1.6847	0.1174	0.0899	0.297	0.303	0.002
61	-3.06	-2.8745	0.0599	-0.1861	0.314	-0.594	0.002
62	-3.39	-3.3963	0.0910	0.007421	0.306	0.024	0.000

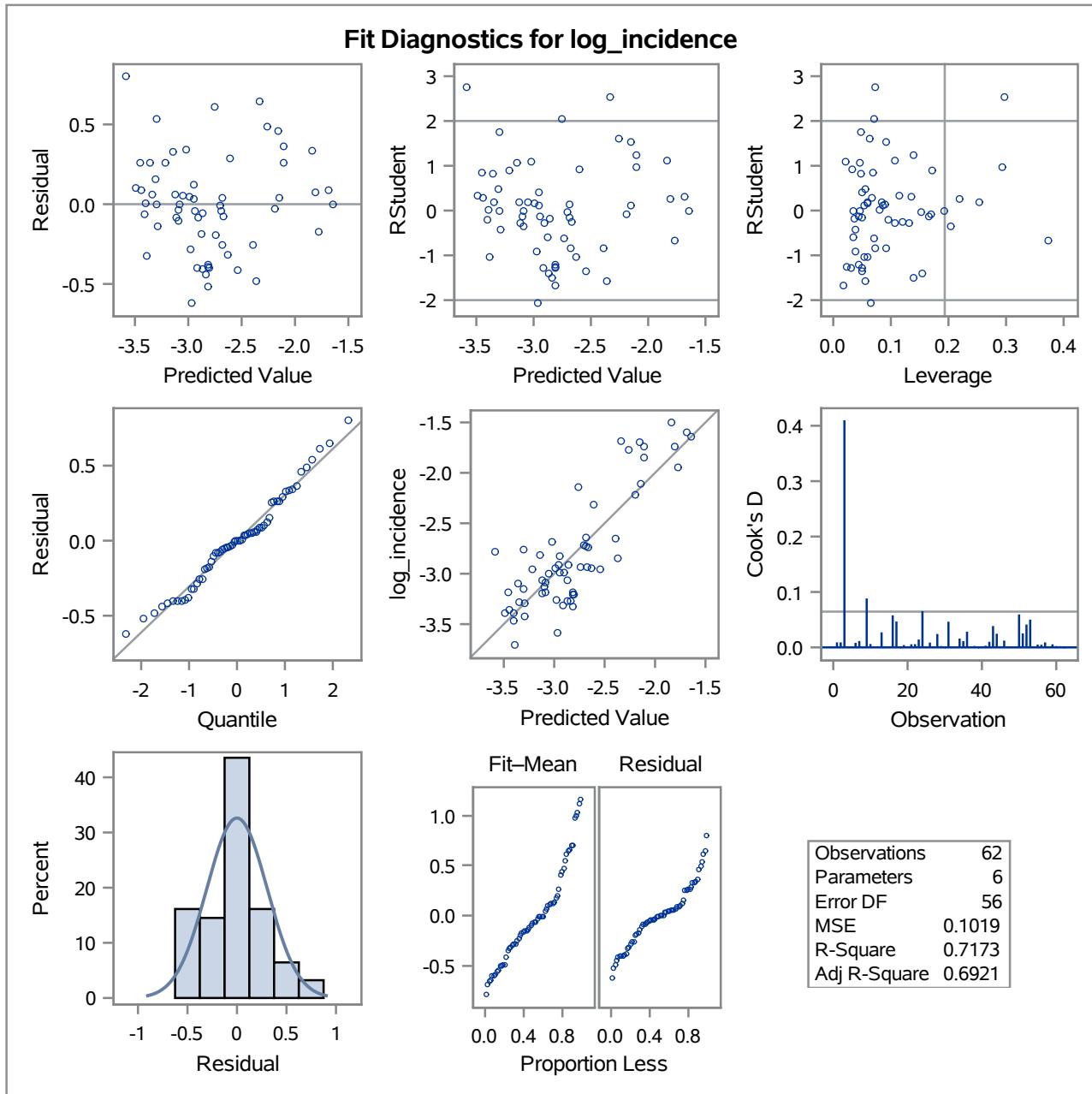
**The REG Procedure  
Model: MODEL1  
Dependent Variable: log\_incidence**

### Studentized Residuals and Cook's D for log\_incidence

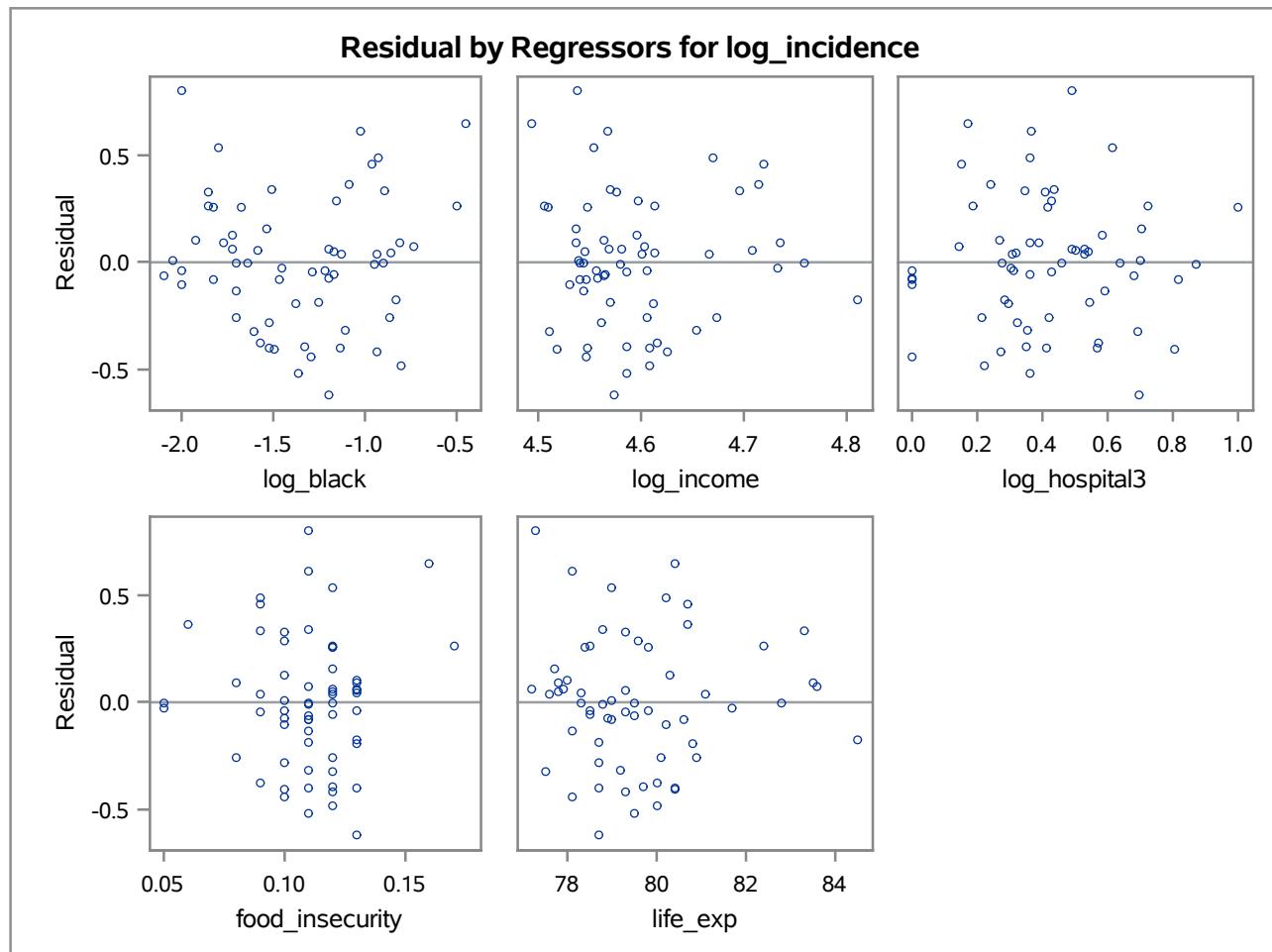


**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: log\_incidence**

Sum of Residuals	0
Sum of Squared Residuals	5.70550
Predicted Residual SS (PRESS)	7.05776



The REG Procedure  
Model: MODEL1



**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: log\_incidence**

Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	14.43670	3.60918	35.81	<.0001
Error	57	5.74510	0.10079		
Corrected Total	61	20.18180			

Root MSE	0.31748	R-Square	0.7153
Dependent Mean	-2.80241	Adj R-Sq	0.6954
Coeff Var	-11.32867		

Parameter Estimates						
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t	Variance Inflation
Intercept	1	-11.73179	2.62157	-4.48	<.0001	0
log_black	1	0.73827	0.11844	6.23	<.0001	1.41691
log_hospital3	1	-0.20188	0.19619	-1.03	0.3078	1.15306
food_insecurity	1	-5.90986	2.16253	-2.73	0.0083	1.22949
life_exp	1	0.13402	0.03057	4.38	<.0001	1.49137

**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: log\_incidence**

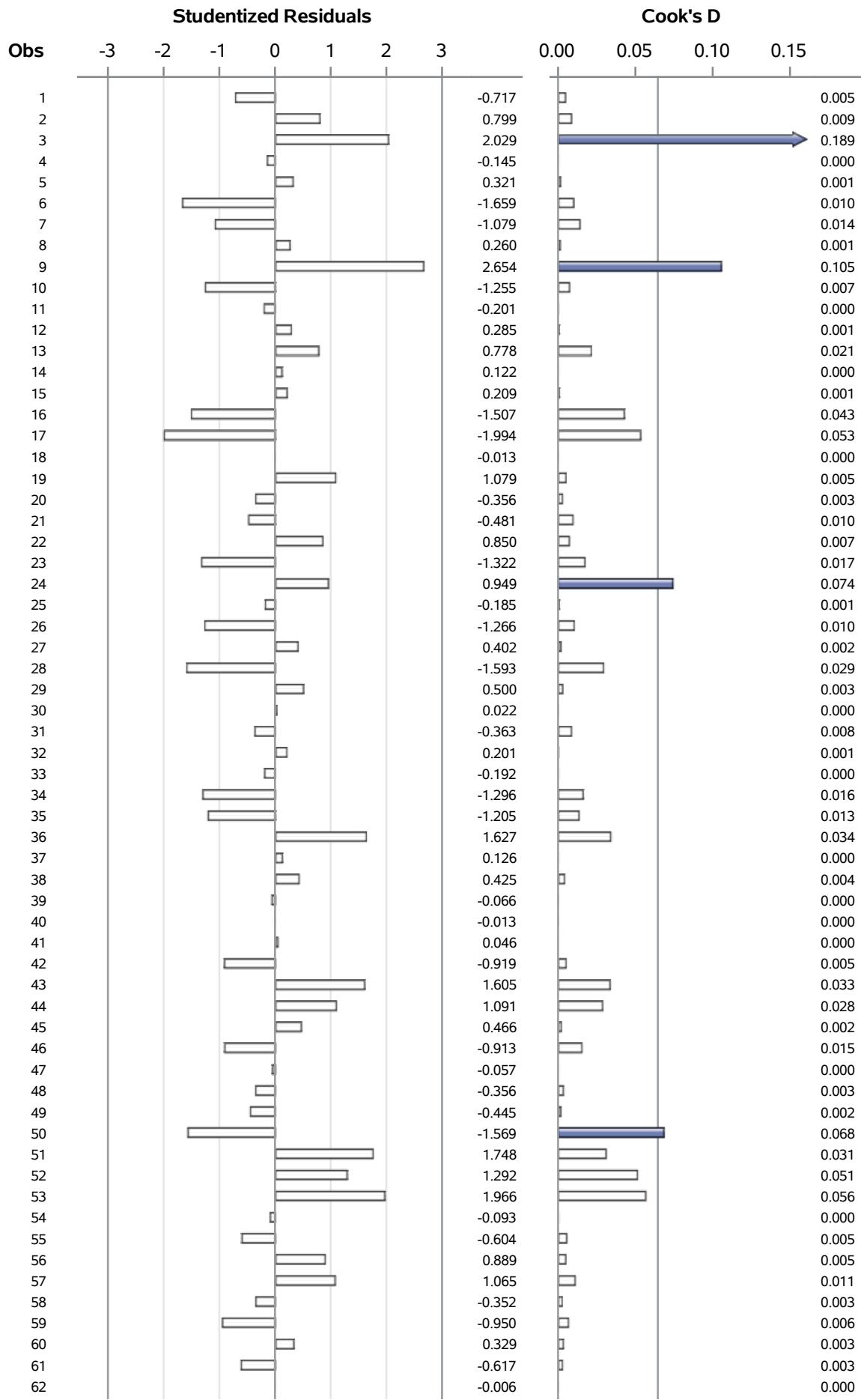
Output Statistics							
Obs	Dependent Variable	Predicted Value	Std Error Mean Predict	Residual	Std Error Residual	Student Residual	Cook's D
1	-2.65	-2.4278	0.0667	-0.2225	0.310	-0.717	0.005
2	-3.19	-3.4352	0.0794	0.2456	0.307	0.799	0.009
3	-1.69	-2.2689	0.1372	0.5809	0.286	2.029	0.189
4	-2.98	-2.9387	0.0664	-0.0449	0.310	-0.145	0.000
5	-3.35	-3.4526	0.0804	0.0985	0.307	0.321	0.001
6	-3.33	-2.8089	0.0420	-0.5221	0.315	-1.659	0.010
7	-3.71	-3.3765	0.0759	-0.3326	0.308	-1.079	0.014
8	-3.06	-3.1415	0.0871	0.0793	0.305	0.260	0.001
9	-2.78	-3.5978	0.0836	0.8129	0.306	2.654	0.105
10	-3.20	-2.8104	0.0480	-0.3938	0.314	-1.255	0.007
11	-2.73	-2.6697	0.0655	-0.0625	0.311	-0.201	0.000
12	-3.28	-3.3703	0.0630	0.0886	0.311	0.285	0.001
13	-2.96	-3.1864	0.1224	0.2280	0.293	0.778	0.021
14	-2.11	-2.1469	0.0730	0.0376	0.309	0.122	0.000
15	-2.64	-2.7033	0.0889	0.0638	0.305	0.209	0.001
16	-3.27	-2.8132	0.0931	-0.4575	0.304	-1.507	0.043
17	-3.59	-2.9746	0.0795	-0.6128	0.307	-1.994	0.053
18	-3.30	-3.2937	0.0592	-0.004075	0.312	-0.013	0.000
19	-2.68	-3.0230	0.0458	0.3388	0.314	1.079	0.005
20	-2.74	-2.6348	0.0989	-0.1073	0.302	-0.356	0.003
21	-3.19	-3.0507	0.1311	-0.1392	0.289	-0.481	0.010
22	-3.10	-3.3645	0.0689	0.2635	0.310	0.850	0.007
23	-3.32	-2.9060	0.0686	-0.4098	0.310	-1.322	0.017
24	-1.84	-2.0973	0.1713	0.2538	0.267	0.949	0.074
25	-3.47	-3.4124	0.0977	-0.0557	0.302	-0.185	0.001
26	-3.21	-2.8139	0.0554	-0.3959	0.313	-1.266	0.010
27	-2.82	-2.9492	0.0710	0.1245	0.309	0.402	0.002
28	-2.85	-2.3559	0.0741	-0.4919	0.309	-1.593	0.029
29	-3.15	-3.3045	0.0752	0.1544	0.308	0.500	0.003
30	-1.65	-1.6525	0.1385	0.006283	0.286	0.022	0.000
31	-1.95	-1.8450	0.1558	-0.1004	0.277	-0.363	0.008
32	-2.92	-2.9780	0.0838	0.0615	0.306	0.201	0.001
33	-2.92	-2.8554	0.0603	-0.0599	0.312	-0.192	0.000

**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: log\_incidence**

Output Statistics							
Obs	Dependent Variable	Predicted Value	Std Error Mean Predict	Residual	Std Error Residual	Student Residual	Cook's D
34	-2.96	-2.5556	0.0678	-0.4021	0.310	-1.296	0.016
35	-3.19	-2.8154	0.0666	-0.3742	0.310	-1.205	0.013
36	-1.77	-2.2710	0.0778	0.5007	0.308	1.627	0.034
37	-2.95	-2.9849	0.0768	0.0390	0.308	0.126	0.000
38	-3.39	-3.5183	0.0994	0.1280	0.302	0.425	0.004
39	-3.09	-3.0654	0.0618	-0.0207	0.311	-0.066	0.000
40	-2.22	-2.2138	0.1253	-0.003928	0.292	-0.013	0.000
41	-1.73	-1.7478	0.1162	0.0136	0.295	0.046	0.000
42	-2.94	-2.6565	0.0544	-0.2873	0.313	-0.919	0.005
43	-1.70	-2.1895	0.0783	0.4940	0.308	1.605	0.033
44	-1.50	-1.8290	0.1038	0.3274	0.300	1.091	0.028
45	-3.00	-3.1435	0.0658	0.1446	0.311	0.466	0.002
46	-2.94	-2.6601	0.0914	-0.2777	0.304	-0.913	0.015
47	-2.71	-2.6959	0.1233	-0.0166	0.293	-0.057	0.000
48	-3.20	-3.0914	0.1087	-0.1062	0.298	-0.356	0.003
49	-3.43	-3.2887	0.0621	-0.1385	0.311	-0.445	0.002
50	-3.28	-2.8098	0.1106	-0.4670	0.298	-1.569	0.068
51	-2.76	-3.3035	0.0696	0.5414	0.310	1.748	0.031
52	-1.74	-2.1214	0.1156	0.3819	0.296	1.292	0.051
53	-2.14	-2.7468	0.0827	0.6026	0.307	1.966	0.056
54	-3.13	-3.1043	0.1283	-0.0270	0.290	-0.093	0.000
55	-2.93	-2.7471	0.0828	-0.1850	0.306	-0.604	0.005
56	-2.32	-2.5937	0.0550	0.2779	0.313	0.889	0.005
57	-2.82	-3.1458	0.0679	0.3304	0.310	1.065	0.011
58	-2.98	-2.8783	0.0971	-0.1064	0.302	-0.352	0.003
59	-3.26	-2.9650	0.0590	-0.2964	0.312	-0.950	0.006
60	-1.59	-1.6920	0.1161	0.0973	0.295	0.329	0.003
61	-3.06	-2.8682	0.0587	-0.1925	0.312	-0.617	0.003
62	-3.39	-3.3869	0.0893	-0.001942	0.305	-0.006	0.000

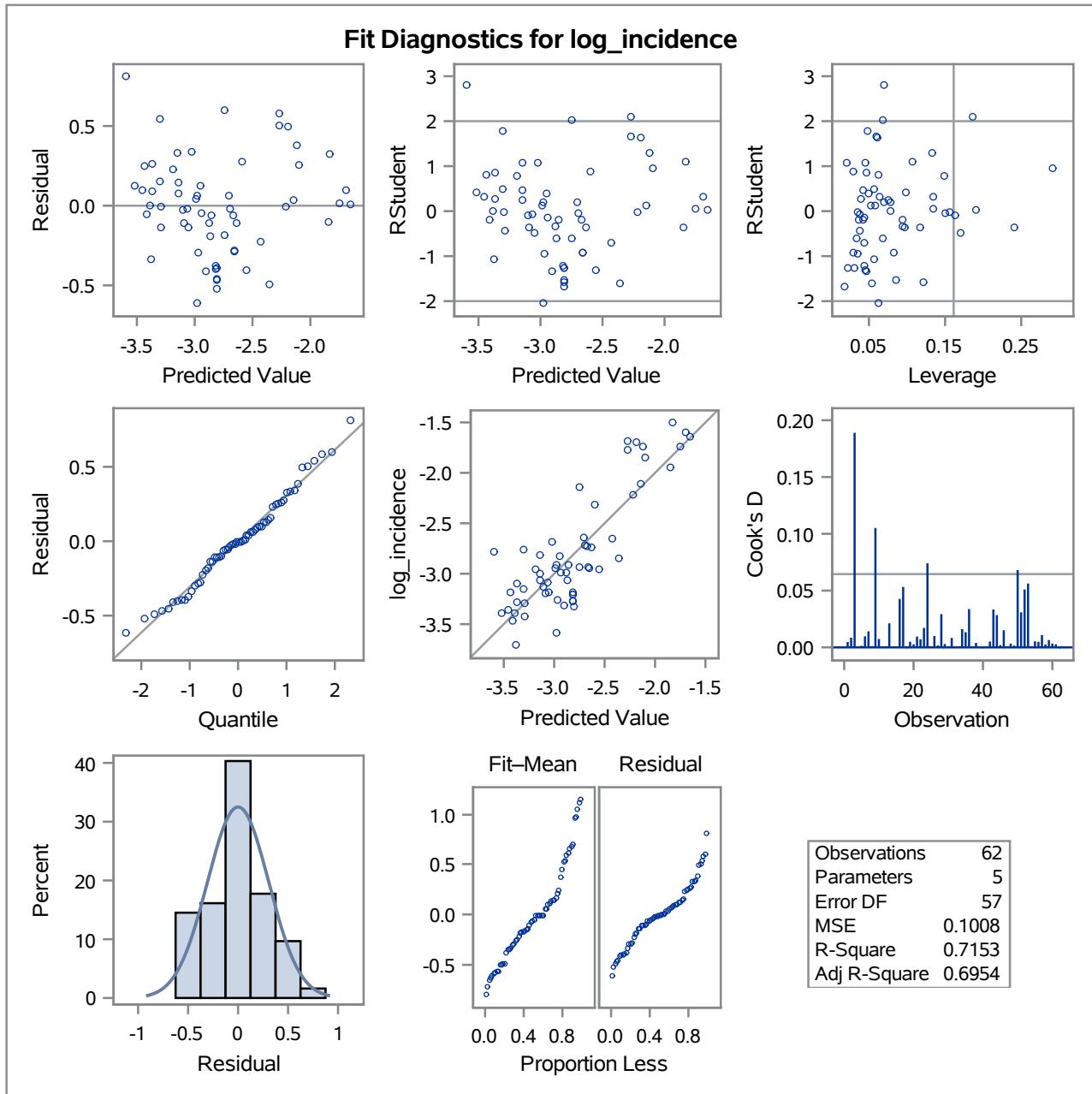
**The REG Procedure  
Model: MODEL1  
Dependent Variable: log\_incidence**

### Studentized Residuals and Cook's D for log\_incidence

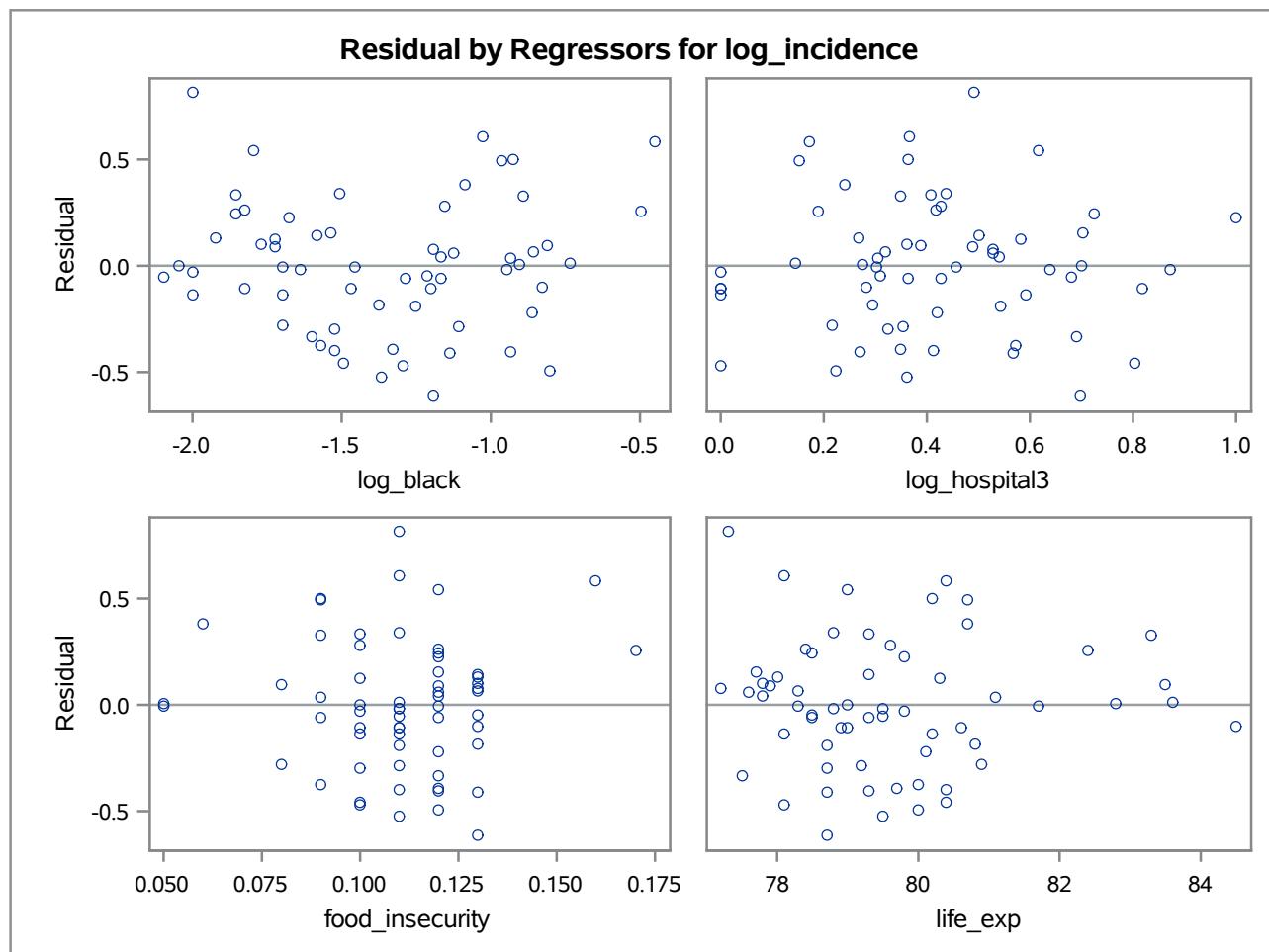


**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: log\_incidence**

Sum of Residuals	0
Sum of Squared Residuals	5.74510
Predicted Residual SS (PRESS)	6.72315



The REG Procedure  
Model: MODEL1



**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: log\_incidence**

Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	14.38263	3.59566	35.34	<.0001
Error	57	5.79917	0.10174		
Corrected Total	61	20.18180			

Root MSE	0.31897	R-Square	0.7127
Dependent Mean	-2.80241	Adj R-Sq	0.6925
Coeff Var	-11.38186		

Parameter Estimates						
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t	Variance Inflation
Intercept	1	-14.30815	4.11228	-3.48	0.0010	0
log_black	1	0.73228	0.12556	5.83	<.0001	1.57756
log_income	1	0.68208	0.94817	0.72	0.4749	2.46248
food_insecurity	1	-5.40337	2.39819	-2.25	0.0281	1.49794
life_exp	1	0.12516	0.03503	3.57	0.0007	1.93920

**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: log\_incidence**

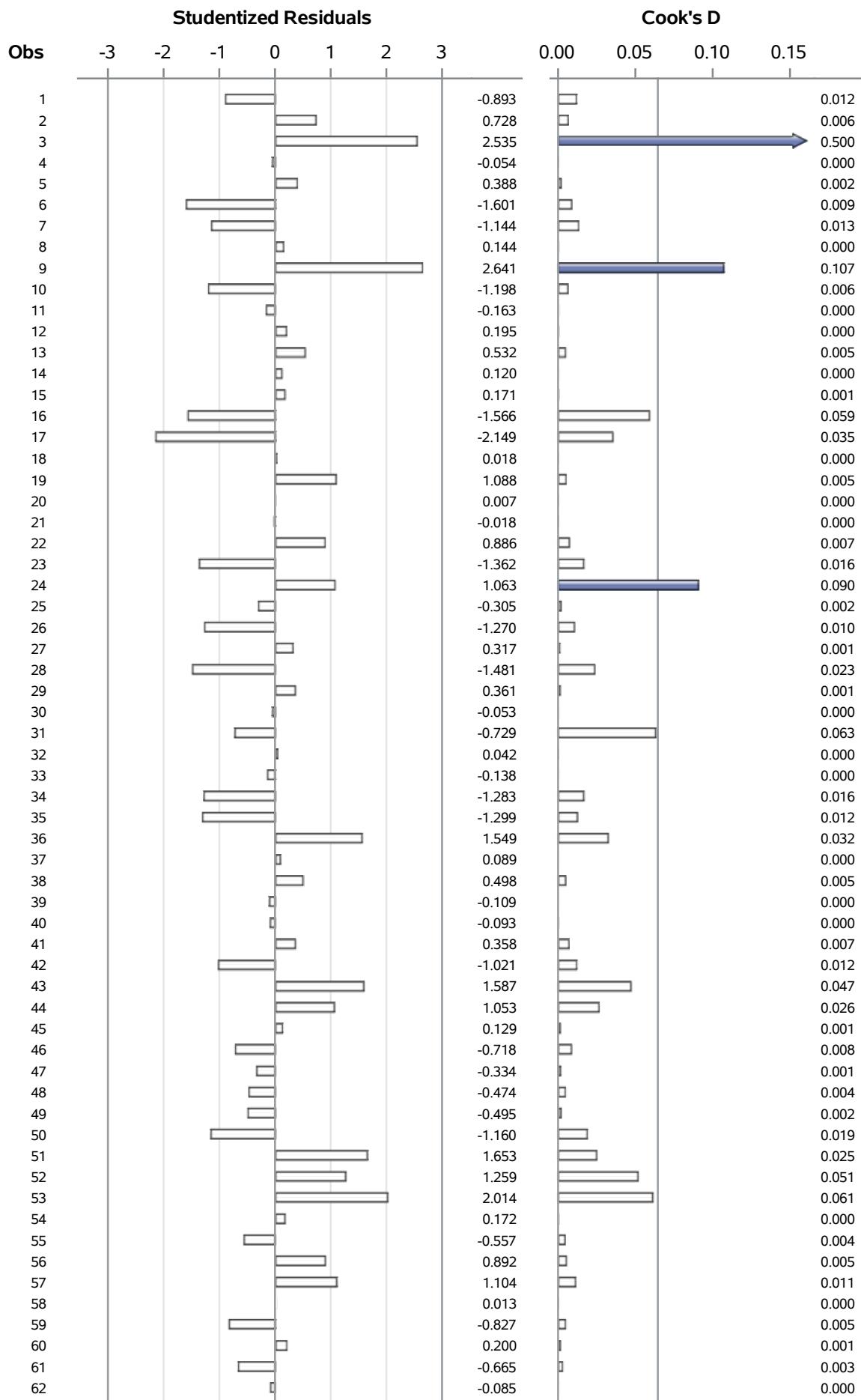
Output Statistics							
Obs	Dependent Variable	Predicted Value	Std Error Mean Predict	Residual	Std Error Residual	Student Residual	Cook's D
1	-2.65	-2.3756	0.0838	-0.2747	0.308	-0.893	0.012
2	-3.19	-3.4155	0.0751	0.2258	0.310	0.728	0.006
3	-1.69	-2.3742	0.1688	0.6862	0.271	2.535	0.500
4	-2.98	-2.9668	0.0618	-0.0169	0.313	-0.054	0.000
5	-3.35	-3.4744	0.0756	0.1203	0.310	0.388	0.002
6	-3.33	-2.8245	0.0409	-0.5065	0.316	-1.601	0.009
7	-3.71	-3.3529	0.0695	-0.3562	0.311	-1.144	0.013
8	-3.06	-3.1063	0.0913	0.0440	0.306	0.144	0.000
9	-2.78	-3.5968	0.0851	0.8119	0.307	2.641	0.107
10	-3.20	-2.8260	0.0461	-0.3782	0.316	-1.198	0.006
11	-2.73	-2.6814	0.0709	-0.0508	0.311	-0.163	0.000
12	-3.28	-3.3419	0.0778	0.0603	0.309	0.195	0.000
13	-2.96	-3.1215	0.0875	0.1631	0.307	0.532	0.005
14	-2.11	-2.1463	0.0734	0.0371	0.310	0.120	0.000
15	-2.64	-2.6916	0.0953	0.0520	0.304	0.171	0.001
16	-3.27	-2.7987	0.1043	-0.4719	0.301	-1.566	0.059
17	-3.59	-2.9147	0.0611	-0.6727	0.313	-2.149	0.035
18	-3.30	-3.3035	0.0589	0.005794	0.313	0.018	0.000
19	-2.68	-3.0277	0.0460	0.3435	0.316	1.088	0.005
20	-2.74	-2.7442	0.0748	0.002130	0.310	0.007	0.000
21	-3.19	-3.1846	0.1025	-0.005376	0.302	-0.018	0.000
22	-3.10	-3.3774	0.0672	0.2764	0.312	0.886	0.007
23	-3.32	-2.8908	0.0657	-0.4251	0.312	-1.362	0.016
24	-1.84	-2.1299	0.1705	0.2864	0.270	1.063	0.090
25	-3.47	-3.3753	0.0937	-0.0929	0.305	-0.305	0.002
26	-3.21	-2.8112	0.0561	-0.3986	0.314	-1.270	0.010
27	-2.82	-2.9237	0.0661	0.0990	0.312	0.317	0.001
28	-2.85	-2.3874	0.0716	-0.4605	0.311	-1.481	0.023
29	-3.15	-3.2629	0.0626	0.1128	0.313	0.361	0.001
30	-1.65	-1.6309	0.1396	-0.0153	0.287	-0.053	0.000
31	-1.95	-1.7610	0.1944	-0.1844	0.253	-0.729	0.063
32	-2.92	-2.9295	0.0909	0.0129	0.306	0.042	0.000
33	-2.92	-2.8722	0.0600	-0.0431	0.313	-0.138	0.000

**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: log\_incidence**

Output Statistics							
Obs	Dependent Variable	Predicted Value	Std Error Mean Predict	Residual	Std Error Residual	Student Residual	Cook's D
34	-2.96	-2.5584	0.0696	-0.3993	0.311	-1.283	0.016
35	-3.19	-2.7824	0.0596	-0.4072	0.313	-1.299	0.012
36	-1.77	-2.2486	0.0798	0.4783	0.309	1.549	0.032
37	-2.95	-2.9735	0.0755	0.0276	0.310	0.089	0.000
38	-3.39	-3.5417	0.0952	0.1515	0.304	0.498	0.005
39	-3.09	-3.0521	0.0602	-0.0340	0.313	-0.109	0.000
40	-2.22	-2.1907	0.1312	-0.0270	0.291	-0.093	0.000
41	-1.73	-1.8357	0.1463	0.1015	0.283	0.358	0.007
42	-2.94	-2.6270	0.0742	-0.3169	0.310	-1.021	0.012
43	-1.70	-2.1798	0.0931	0.4842	0.305	1.587	0.047
44	-1.50	-1.8193	0.1034	0.3177	0.302	1.053	0.026
45	-3.00	-3.0346	0.1594	0.0357	0.276	0.129	0.001
46	-2.94	-2.7177	0.0878	-0.2200	0.307	-0.718	0.008
47	-2.71	-2.6093	0.0774	-0.1032	0.309	-0.334	0.001
48	-3.20	-3.0535	0.0960	-0.1442	0.304	-0.474	0.004
49	-3.43	-3.2720	0.0594	-0.1552	0.313	-0.495	0.002
50	-3.28	-2.9191	0.0814	-0.3577	0.308	-1.160	0.019
51	-2.76	-3.2778	0.0664	0.5158	0.312	1.653	0.025
52	-1.74	-2.1120	0.1192	0.3725	0.296	1.259	0.051
53	-2.14	-2.7638	0.0844	0.6196	0.308	2.014	0.061
54	-3.13	-3.1841	0.0889	0.0528	0.306	0.172	0.000
55	-2.93	-2.7604	0.0812	-0.1717	0.308	-0.557	0.004
56	-2.32	-2.5956	0.0570	0.2799	0.314	0.892	0.005
57	-2.82	-3.1596	0.0667	0.3442	0.312	1.104	0.011
58	-2.98	-2.9887	0.0525	0.004008	0.315	0.013	0.000
59	-3.26	-3.0021	0.0573	-0.2593	0.314	-0.827	0.005
60	-1.59	-1.6543	0.1129	0.0596	0.298	0.200	0.001
61	-3.06	-2.8516	0.0548	-0.2091	0.314	-0.665	0.003
62	-3.39	-3.3627	0.0839	-0.0262	0.308	-0.085	0.000

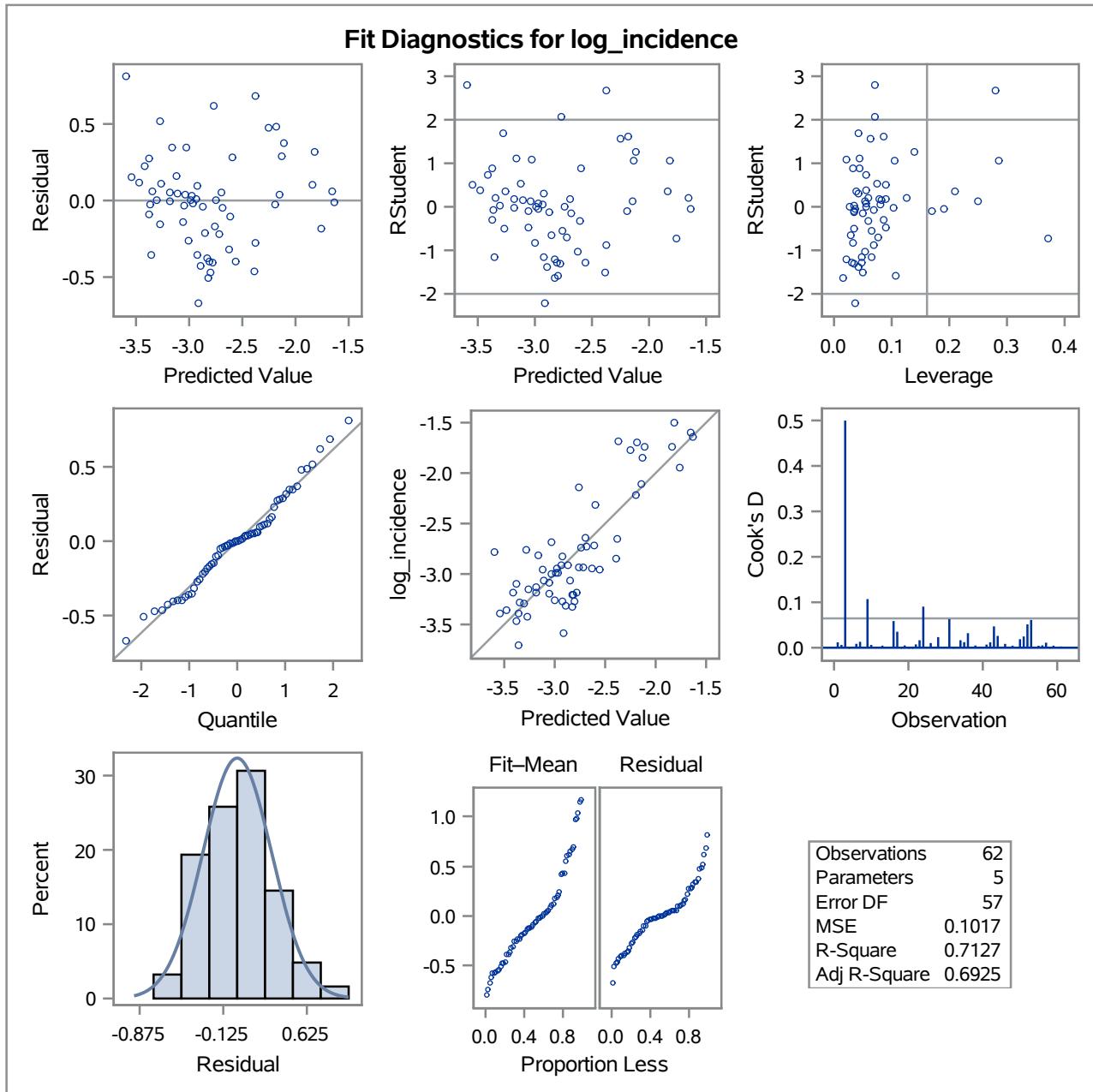
**The REG Procedure  
Model: MODEL1  
Dependent Variable: log\_incidence**

### Studentized Residuals and Cook's D for log\_incidence

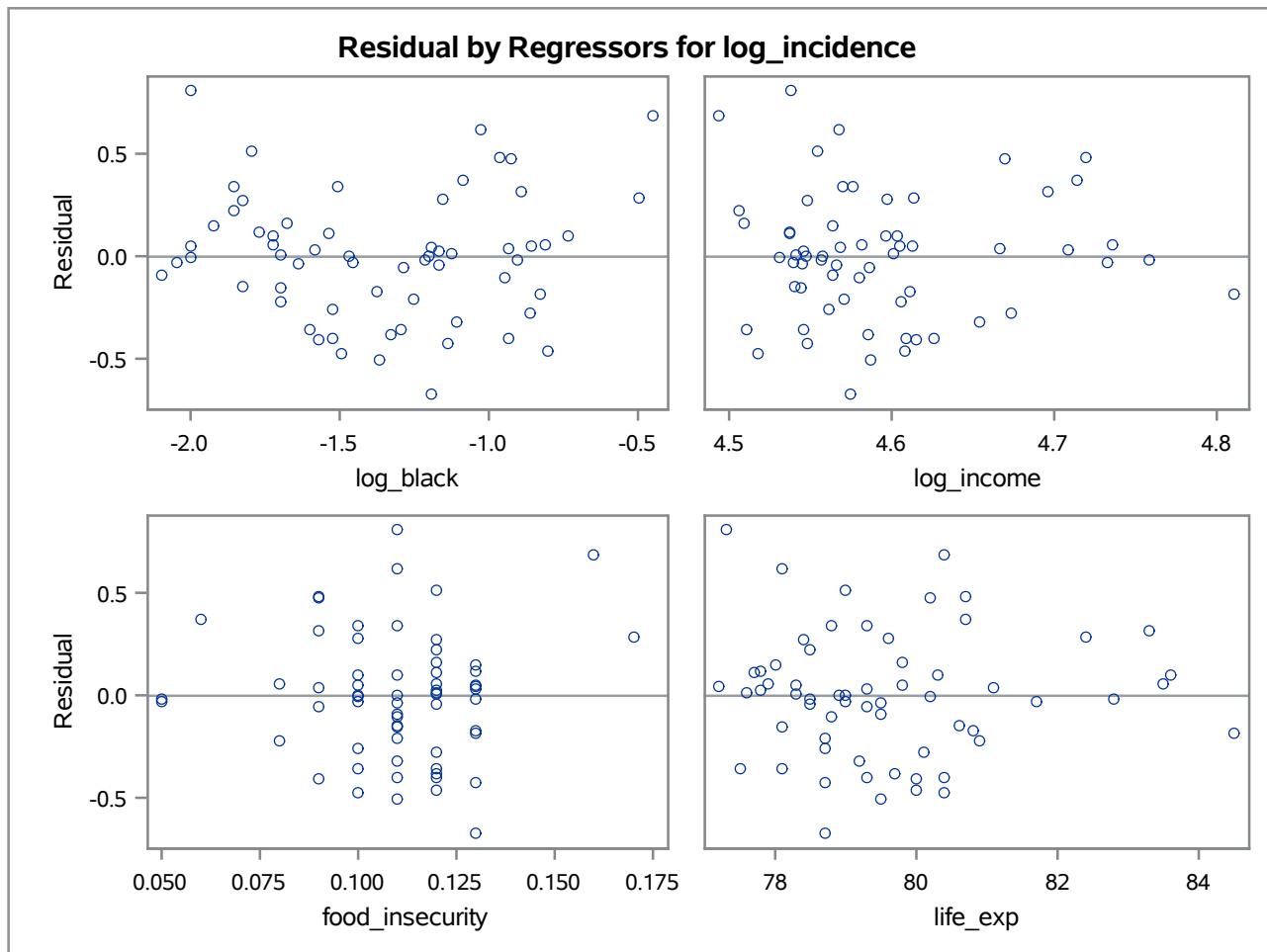


**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: log\_incidence**

Sum of Residuals	0
Sum of Squared Residuals	5.79917
Predicted Residual SS (PRESS)	7.03582



The REG Procedure  
Model: MODEL1



**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: log\_incidence**

Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	14.32998	4.77666	47.34	<.0001
Error	58	5.85182	0.10089		
Corrected Total	61	20.18180			

Root MSE	0.31764	R-Square	0.7100
Dependent Mean	-2.80241	Adj R-Sq	0.6950
Coeff Var	-11.33441		

Parameter Estimates						
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t	Variance Inflation
Intercept	1	-12.02691	2.60715	-4.61	<.0001	0
log_black	1	0.76778	0.11497	6.68	<.0001	1.33382
food_insecurity	1	-6.15347	2.15063	-2.86	0.0059	1.21475
life_exp	1	0.13751	0.03040	4.52	<.0001	1.47300

**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: log\_incidence**

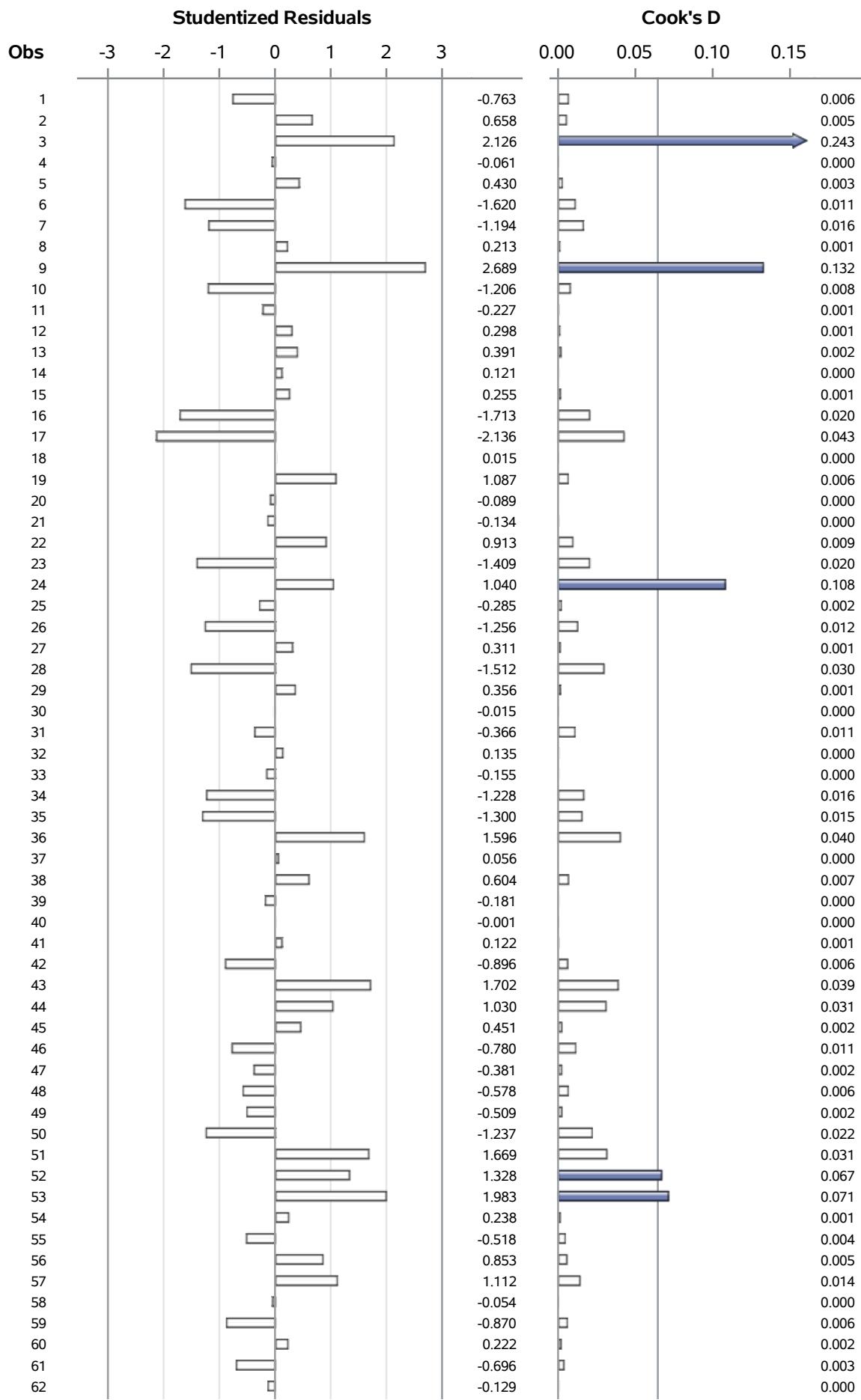
Output Statistics							
Obs	Dependent Variable	Predicted Value	Std Error Mean Predict	Residual	Std Error Residual	Student Residual	Cook's D
1	-2.65	-2.4133	0.0652	-0.2371	0.311	-0.763	0.006
2	-3.19	-3.3939	0.0685	0.2042	0.310	0.658	0.005
3	-1.69	-2.3007	0.1337	0.6126	0.288	2.126	0.243
4	-2.98	-2.9646	0.0615	-0.0190	0.312	-0.061	0.000
5	-3.35	-3.4869	0.0733	0.1328	0.309	0.430	0.003
6	-3.33	-2.8206	0.0404	-0.5104	0.315	-1.620	0.011
7	-3.71	-3.3380	0.0661	-0.3710	0.311	-1.194	0.016
8	-3.06	-3.1274	0.0861	0.0651	0.306	0.213	0.001
9	-2.78	-3.6095	0.0829	0.8246	0.307	2.689	0.132
10	-3.20	-2.8250	0.0459	-0.3792	0.314	-1.206	0.008
11	-2.73	-2.6617	0.0651	-0.0705	0.311	-0.227	0.001
12	-3.28	-3.3745	0.0629	0.0929	0.311	0.298	0.001
13	-2.96	-3.0799	0.0654	0.1215	0.311	0.391	0.002
14	-2.11	-2.1466	0.0731	0.0374	0.309	0.121	0.000
15	-2.64	-2.7175	0.0879	0.0779	0.305	0.255	0.001
16	-3.27	-2.7339	0.0521	-0.5368	0.313	-1.713	0.020
17	-3.59	-2.9211	0.0602	-0.6663	0.312	-2.136	0.043
18	-3.30	-3.3024	0.0586	0.004713	0.312	0.015	0.000
19	-2.68	-3.0260	0.0458	0.3418	0.314	1.087	0.006
20	-2.74	-2.7143	0.0619	-0.0278	0.312	-0.089	0.000
21	-3.19	-3.1492	0.0896	-0.0407	0.305	-0.134	0.000
22	-3.10	-3.3846	0.0661	0.2836	0.311	0.913	0.009
23	-3.32	-2.8773	0.0627	-0.4386	0.311	-1.409	0.020
24	-1.84	-2.1228	0.1695	0.2793	0.269	1.040	0.108
25	-3.47	-3.3814	0.0930	-0.0867	0.304	-0.285	0.002
26	-3.21	-2.8169	0.0553	-0.3929	0.313	-1.256	0.012
27	-2.82	-2.9214	0.0657	0.0968	0.311	0.311	0.001
28	-2.85	-2.3795	0.0705	-0.4684	0.310	-1.512	0.030
29	-3.15	-3.2611	0.0623	0.1109	0.311	0.356	0.001
30	-1.65	-1.6418	0.1382	-0.004376	0.286	-0.015	0.000
31	-1.95	-1.8440	0.1558	-0.1014	0.277	-0.366	0.011
32	-2.92	-2.9580	0.0815	0.0414	0.307	0.135	0.000
33	-2.92	-2.8669	0.0592	-0.0484	0.312	-0.155	0.000

**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: log\_incidence**

Output Statistics							
Obs	Dependent Variable	Predicted Value	Std Error Mean Predict	Residual	Std Error Residual	Student Residual	Cook's D
34	-2.96	-2.5759	0.0649	-0.3818	0.311	-1.228	0.016
35	-3.19	-2.7840	0.0593	-0.4056	0.312	-1.300	0.015
36	-1.77	-2.2619	0.0773	0.4916	0.308	1.596	0.040
37	-2.95	-2.9631	0.0739	0.0172	0.309	0.056	0.000
38	-3.39	-3.5756	0.0824	0.1853	0.307	0.604	0.007
39	-3.09	-3.0293	0.0509	-0.0568	0.314	-0.181	0.000
40	-2.22	-2.2175	0.1253	-0.000185	0.292	-0.001	0.000
41	-1.73	-1.7703	0.1142	0.0361	0.296	0.122	0.001
42	-2.94	-2.6633	0.0541	-0.2805	0.313	-0.896	0.006
43	-1.70	-2.2224	0.0715	0.5269	0.309	1.702	0.039
44	-1.50	-1.8113	0.1024	0.3097	0.301	1.030	0.031
45	-3.00	-3.1390	0.0657	0.1401	0.311	0.451	0.002
46	-2.94	-2.6988	0.0834	-0.2390	0.306	-0.780	0.011
47	-2.71	-2.5947	0.0744	-0.1178	0.309	-0.381	0.002
48	-3.20	-3.0206	0.0841	-0.1771	0.306	-0.578	0.006
49	-3.43	-3.2684	0.0589	-0.1588	0.312	-0.509	0.002
50	-3.28	-2.8947	0.0737	-0.3821	0.309	-1.237	0.022
51	-2.76	-3.2806	0.0660	0.5185	0.311	1.669	0.031
52	-1.74	-2.1327	0.1151	0.3932	0.296	1.328	0.067
53	-2.14	-2.7524	0.0825	0.6082	0.307	1.983	0.071
54	-3.13	-3.2042	0.0840	0.0729	0.306	0.238	0.001
55	-2.93	-2.7728	0.0790	-0.1593	0.308	-0.518	0.004
56	-2.32	-2.5829	0.0540	0.2671	0.313	0.853	0.005
57	-2.82	-3.1608	0.0664	0.3454	0.311	1.112	0.014
58	-2.98	-2.9677	0.0434	-0.0170	0.315	-0.054	0.000
59	-3.26	-2.9892	0.0542	-0.2723	0.313	-0.870	0.006
60	-1.59	-1.6606	0.1121	0.0659	0.297	0.222	0.002
61	-3.06	-2.8426	0.0532	-0.2181	0.313	-0.696	0.003
62	-3.39	-3.3494	0.0815	-0.0395	0.307	-0.129	0.000

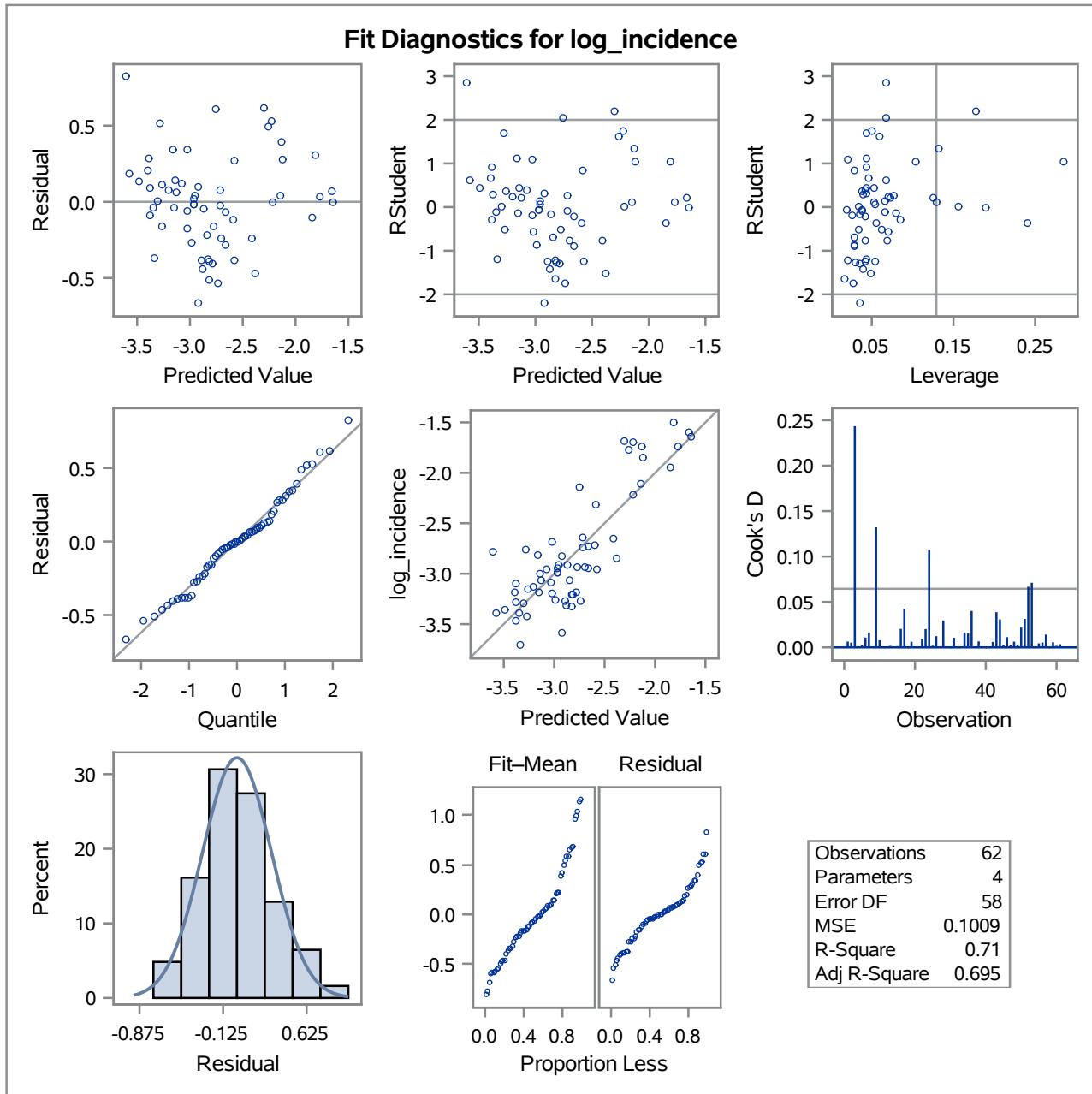
**The REG Procedure  
Model: MODEL1  
Dependent Variable: log\_incidence**

### Studentized Residuals and Cook's D for log\_incidence

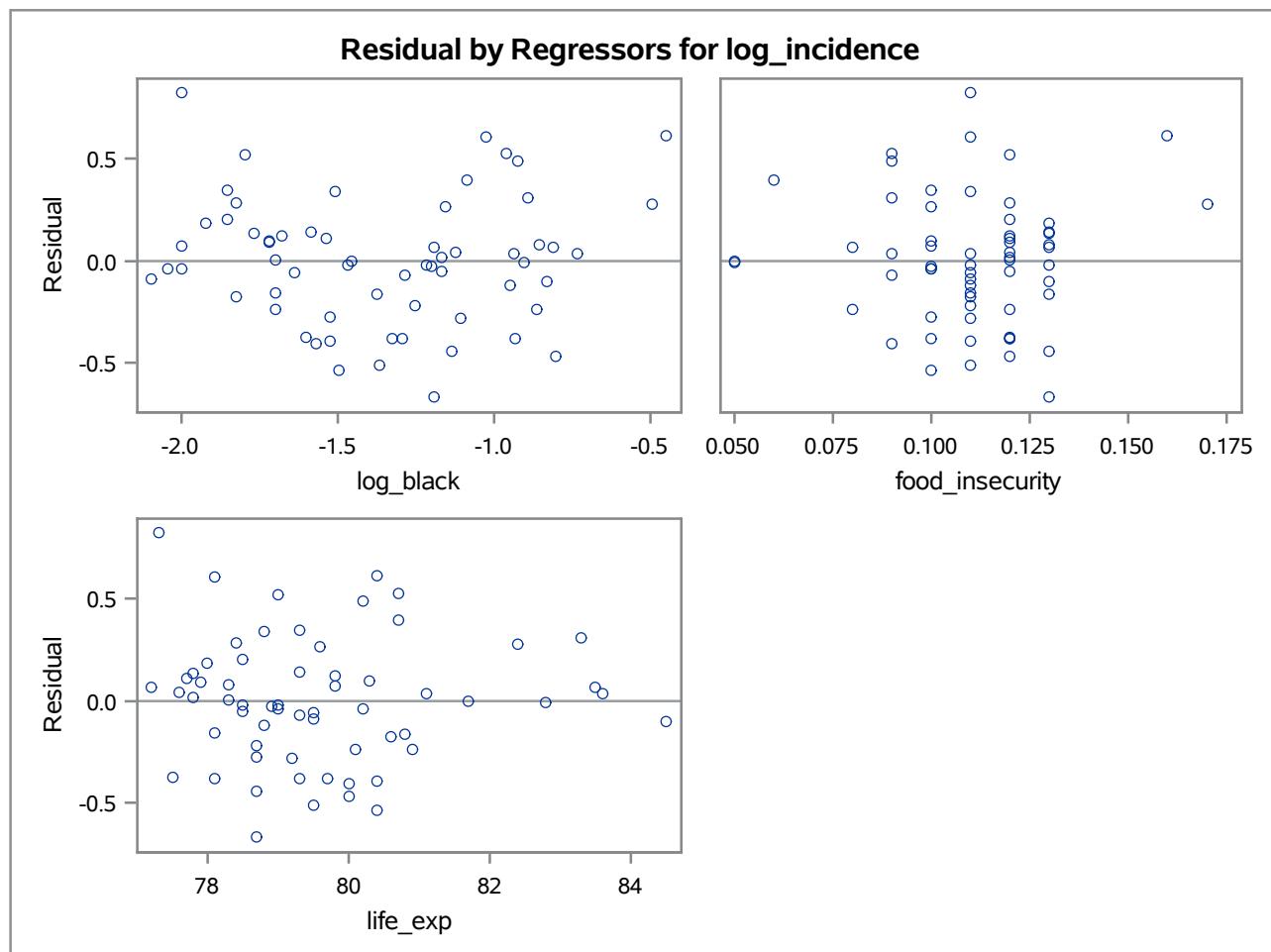


**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: log\_incidence**

Sum of Residuals	0
Sum of Squared Residuals	5.85182
Predicted Residual SS (PRESS)	6.69103



The REG Procedure  
Model: MODEL1



**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: log\_incidence**

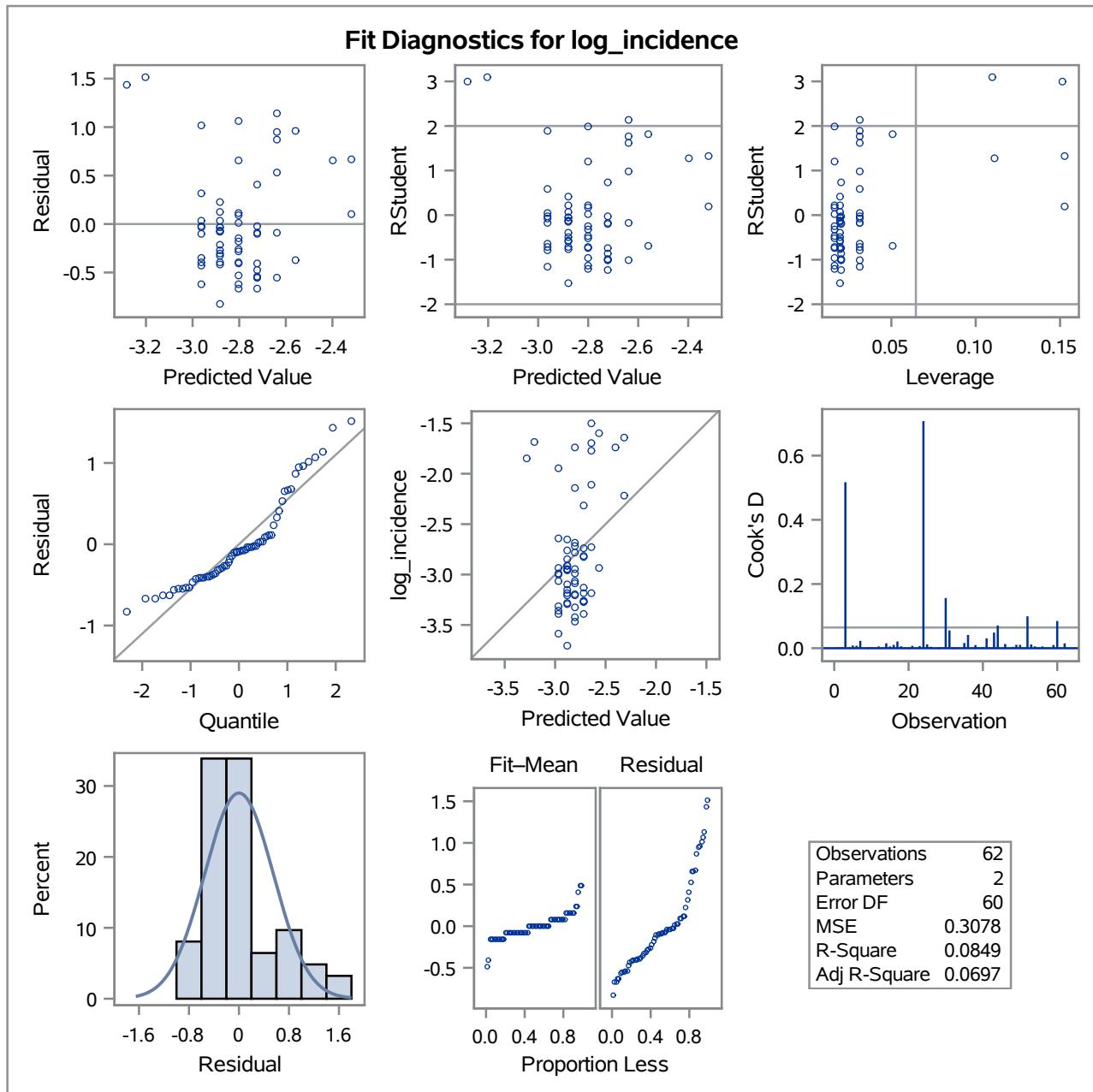
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	1.71430	1.71430	5.57	0.0215
Error	60	18.46750	0.30779		
Corrected Total	61	20.18180			

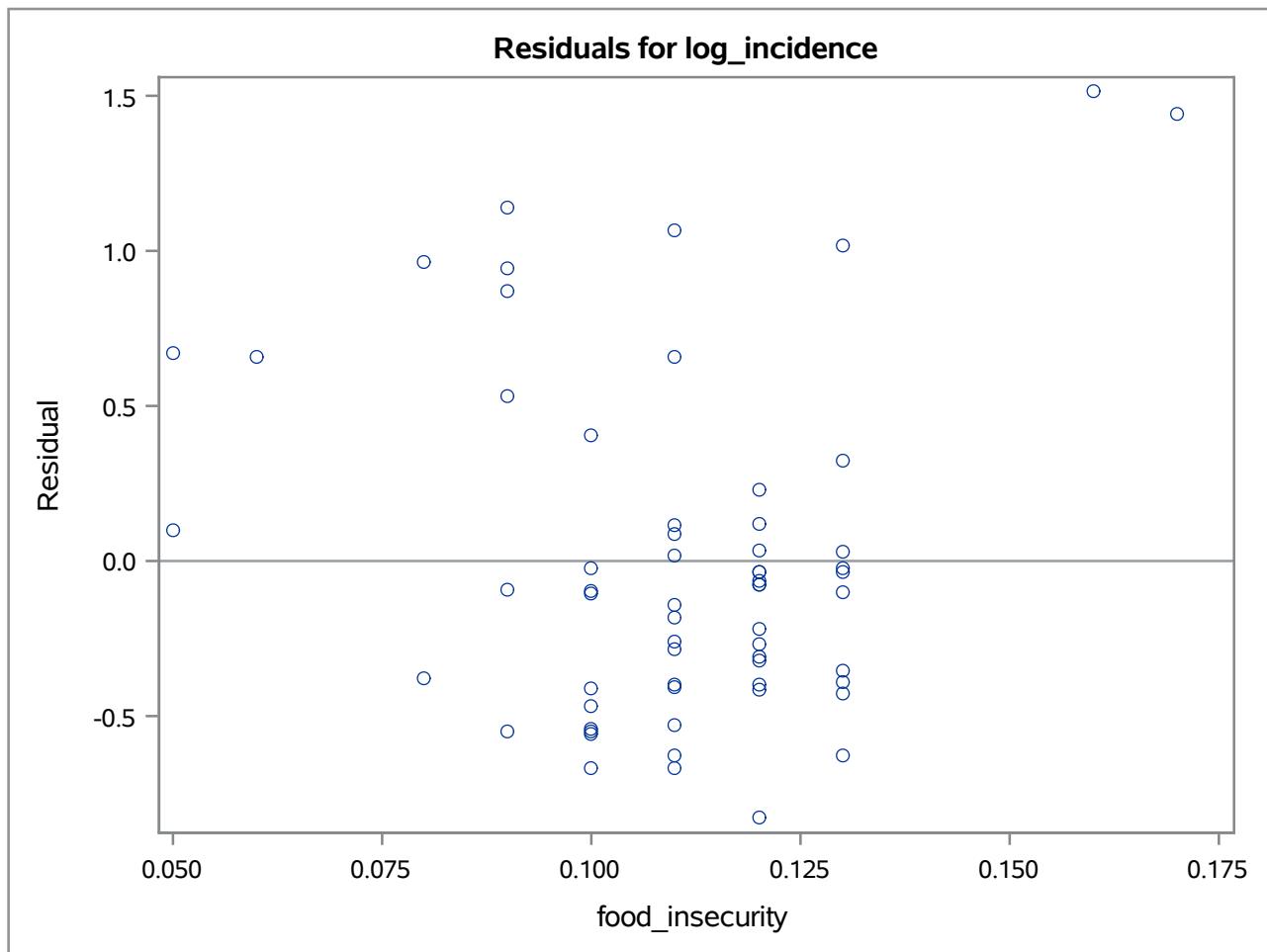
Root MSE	0.55479	R-Square	0.0849
Dependent Mean	-2.80241	Adj R-Sq	0.0697
Coeff Var	-19.79685		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	-1.91635	0.38200	-5.02	<.0001
food_insecurity	1	-8.04330	3.40815	-2.36	0.0215

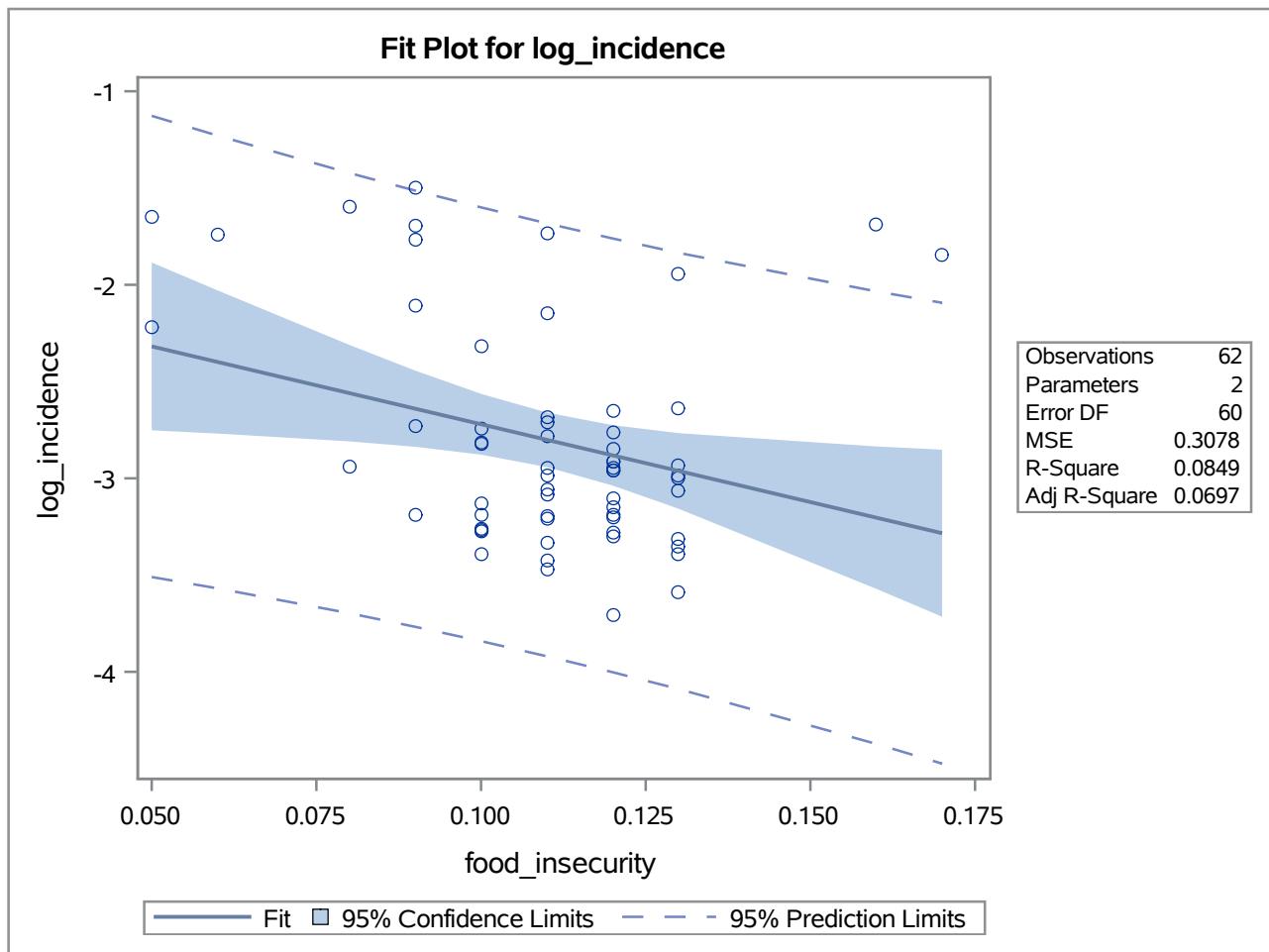
**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: log\_incidence**



The REG Procedure  
Model: MODEL1  
Dependent Variable: log\_incidence



The REG Procedure  
Model: MODEL1  
Dependent Variable: log\_incidence



**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: log\_incidence**

Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	4.99124	2.49562	9.69	0.0002
Error	59	15.19056	0.25747		
Corrected Total	61	20.18180			

Root MSE	0.50741	R-Square	0.2473
Dependent Mean	-2.80241	Adj R-Sq	0.2218
Coeff Var	-18.10625		

Parameter Estimates						
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t	Variance Inflation
Intercept	1	-0.87479	0.45530	-1.92	0.0595	0
Unemployment	1	-37.78791	10.59205	-3.57	0.0007	1.28608
food_insecurity	1	-2.09531	3.53497	-0.59	0.5556	1.28608

**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: log\_incidence**

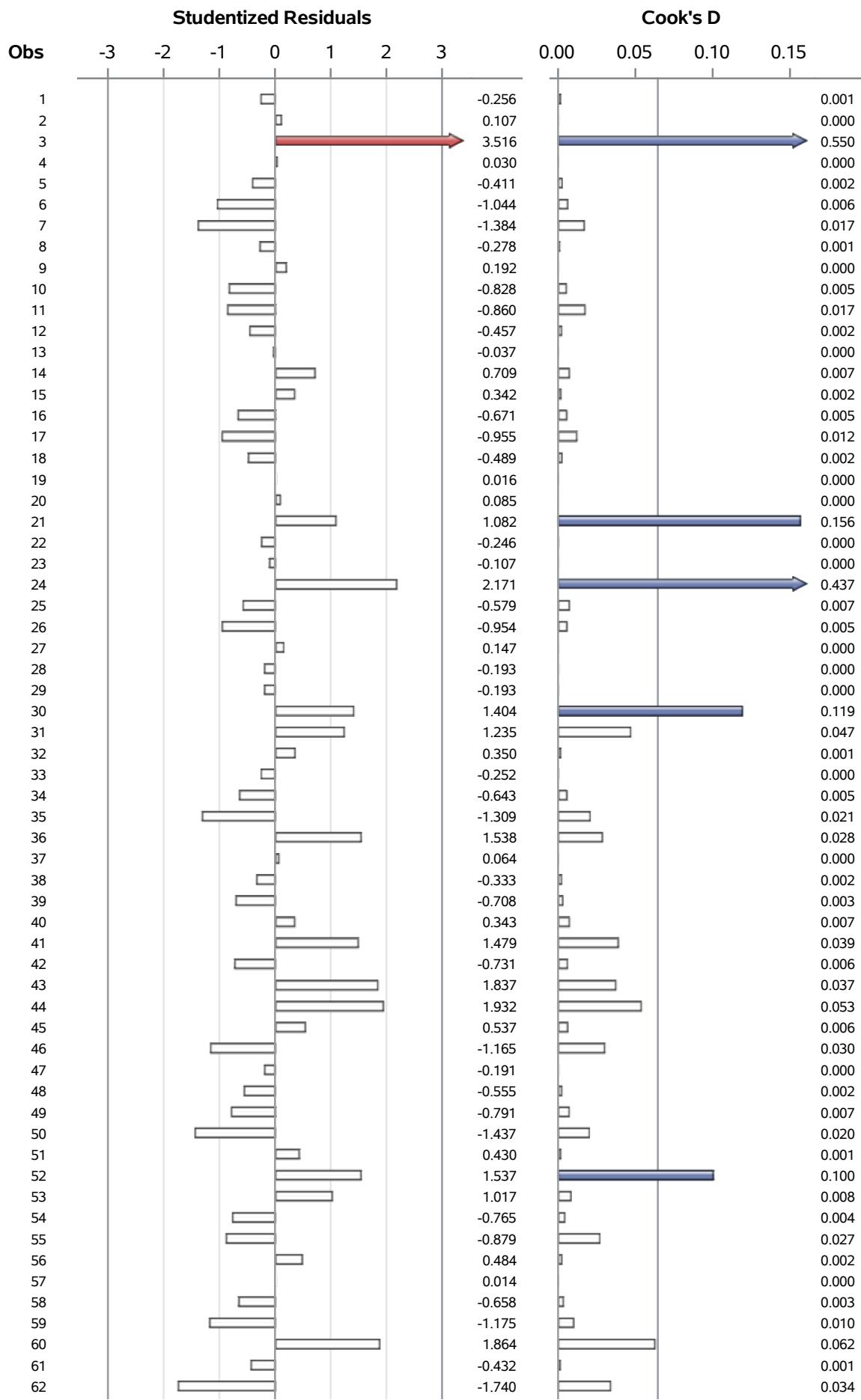
Output Statistics							
Obs	Dependent Variable	Predicted Value	Std Error Mean Predict	Residual	Std Error Residual	Student Residual	Cook's D
1	-2.65	-2.5244	0.1229	-0.1260	0.492	-0.256	0.001
2	-3.19	-3.2424	0.1238	0.0527	0.492	0.107	0.000
3	-1.69	-3.3640	0.1741	1.6759	0.477	3.516	0.550
4	-2.98	-2.9988	0.0899	0.0151	0.499	0.030	0.000
5	-3.35	-3.1499	0.1037	-0.2042	0.497	-0.411	0.002
6	-3.33	-2.8057	0.0645	-0.5253	0.503	-1.044	0.006
7	-3.71	-3.0156	0.0807	-0.6934	0.501	-1.384	0.017
8	-3.06	-2.9232	0.0900	-0.1391	0.499	-0.278	0.001
9	-2.78	-2.8813	0.0683	0.0964	0.503	0.192	0.000
10	-3.20	-2.7889	0.0759	-0.4153	0.502	-0.828	0.005
11	-2.73	-2.3104	0.1290	-0.4218	0.491	-0.860	0.017
12	-3.28	-3.0534	0.0861	-0.2283	0.500	-0.457	0.002
13	-2.96	-2.9401	0.0732	-0.0184	0.502	-0.037	0.000
14	-2.11	-2.4615	0.1030	0.3523	0.497	0.709	0.007
15	-2.64	-2.8099	0.0990	0.1703	0.498	0.342	0.002
16	-3.27	-2.9359	0.0938	-0.3347	0.499	-0.671	0.005
17	-3.59	-3.1122	0.0987	-0.4752	0.498	-0.955	0.012
18	-3.30	-3.0534	0.0861	-0.2443	0.500	-0.489	0.002
19	-2.68	-2.6924	0.0713	0.008165	0.502	0.016	0.000
20	-2.74	-2.7848	0.0740	0.0427	0.502	0.085	0.000
21	-3.19	-3.6539	0.2713	0.4639	0.429	1.082	0.156
22	-3.10	-2.9778	0.0763	-0.1232	0.502	-0.246	0.000
23	-3.32	-3.2633	0.1229	-0.0526	0.492	-0.107	0.000
24	-1.84	-2.8181	0.2366	0.9745	0.449	2.171	0.437
25	-3.47	-3.1836	0.1251	-0.2845	0.492	-0.579	0.007
26	-3.21	-2.7302	0.0674	-0.4797	0.503	-0.954	0.005
27	-2.82	-2.8981	0.0874	0.0734	0.500	0.147	0.000
28	-2.85	-2.7511	0.0802	-0.0967	0.501	-0.193	0.000
29	-3.15	-3.0534	0.0861	-0.0967	0.500	-0.193	0.000
30	-1.65	-2.3021	0.1983	0.6559	0.467	1.404	0.119
31	-1.95	-2.5453	0.1470	0.5999	0.486	1.235	0.047
32	-2.92	-3.0912	0.0924	0.1746	0.499	0.350	0.001
33	-2.92	-2.7889	0.0759	-0.1264	0.502	-0.252	0.000

**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: log\_incidence**

Output Statistics							
Obs	Dependent Variable	Predicted Value	Std Error Mean Predict	Residual	Std Error Residual	Student Residual	Cook's D
34	-2.96	-2.6377	0.0988	-0.3200	0.498	-0.643	0.005
35	-3.19	-2.5371	0.0945	-0.6525	0.499	-1.309	0.021
36	-1.77	-2.5371	0.0945	0.7668	0.499	1.538	0.028
37	-2.95	-2.9778	0.0763	0.0319	0.502	0.064	0.000
38	-3.39	-3.2255	0.1159	-0.1647	0.494	-0.333	0.002
39	-3.09	-2.7302	0.0674	-0.3560	0.503	-0.708	0.003
40	-2.22	-2.3777	0.1990	0.1600	0.467	0.343	0.007
41	-1.73	-2.4656	0.1140	0.7314	0.494	1.479	0.039
42	-2.94	-2.5790	0.0896	-0.3649	0.499	-0.731	0.006
43	-1.70	-2.6127	0.0903	0.9172	0.499	1.837	0.037
44	-1.50	-2.4615	0.1030	0.9599	0.497	1.932	0.053
45	-3.00	-3.2633	0.1229	0.2644	0.492	0.537	0.006
46	-2.94	-2.3650	0.1264	-0.5727	0.491	-1.165	0.030
47	-2.71	-2.6168	0.0826	-0.0957	0.501	-0.191	0.000
48	-3.20	-2.9191	0.0724	-0.2786	0.502	-0.555	0.002
49	-3.43	-3.0325	0.0914	-0.3947	0.499	-0.791	0.007
50	-3.28	-2.5581	0.0851	-0.7188	0.500	-1.437	0.020
51	-2.76	-2.9778	0.0763	0.2158	0.502	0.430	0.001
52	-1.74	-2.4742	0.1704	0.7347	0.478	1.537	0.100
53	-2.14	-2.6546	0.0764	0.5104	0.502	1.017	0.008
54	-3.13	-2.7470	0.0722	-0.3843	0.502	-0.765	0.004
55	-2.93	-2.5075	0.1556	-0.4246	0.483	-0.879	0.027
56	-2.32	-2.5581	0.0851	0.2423	0.500	0.484	0.002
57	-2.82	-2.8226	0.0773	0.007207	0.501	0.014	0.000
58	-2.98	-2.6546	0.0764	-0.3301	0.502	-0.658	0.003
59	-3.26	-2.6714	0.0731	-0.5900	0.502	-1.175	0.010
60	-1.59	-2.5161	0.1146	0.9214	0.494	1.864	0.062
61	-3.06	-2.8435	0.0655	-0.2172	0.503	-0.432	0.001
62	-3.39	-2.5203	0.0912	-0.8686	0.499	-1.740	0.034

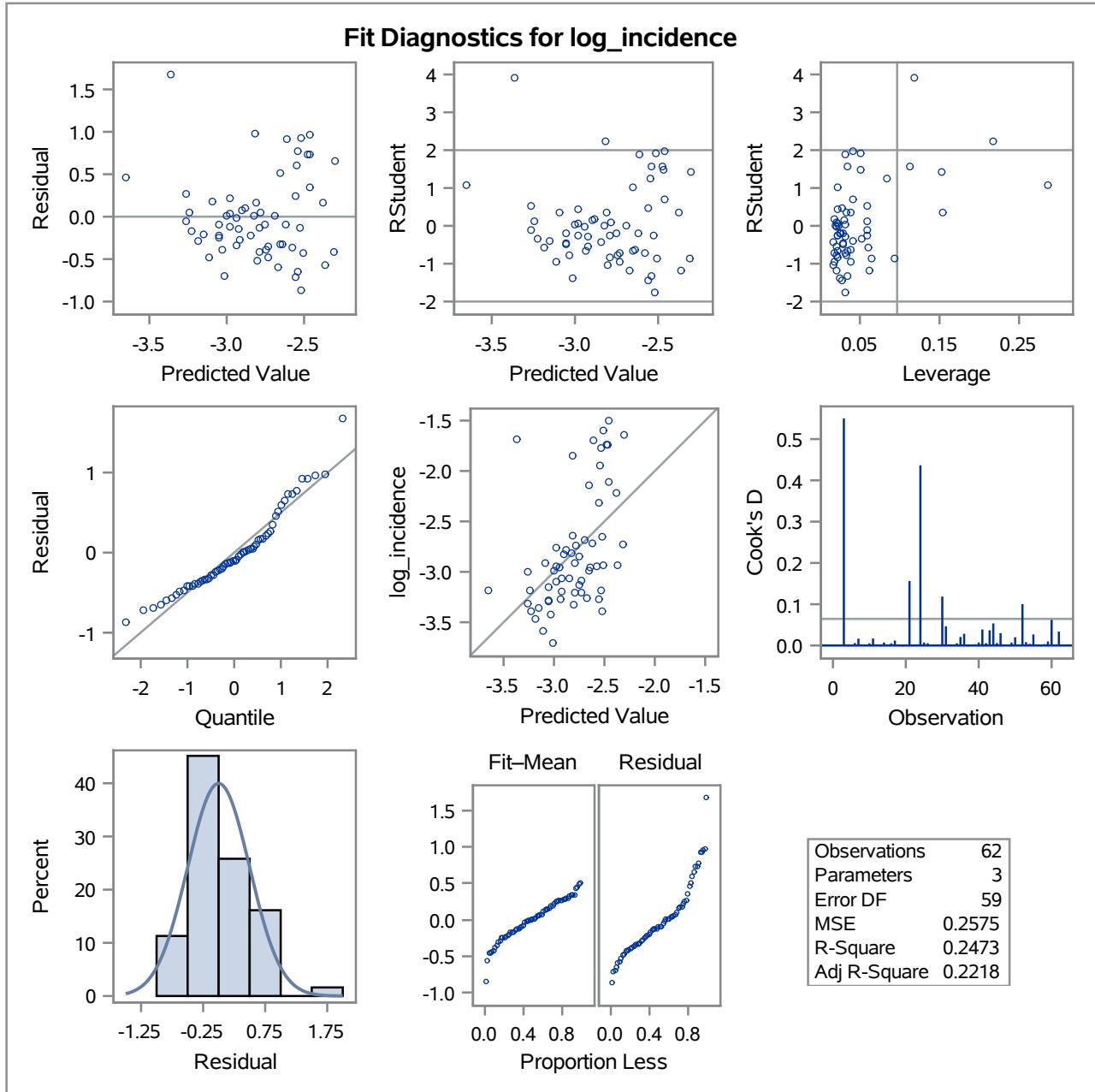
**The REG Procedure  
Model: MODEL1  
Dependent Variable: log\_incidence**

### Studentized Residuals and Cook's D for log\_incidence

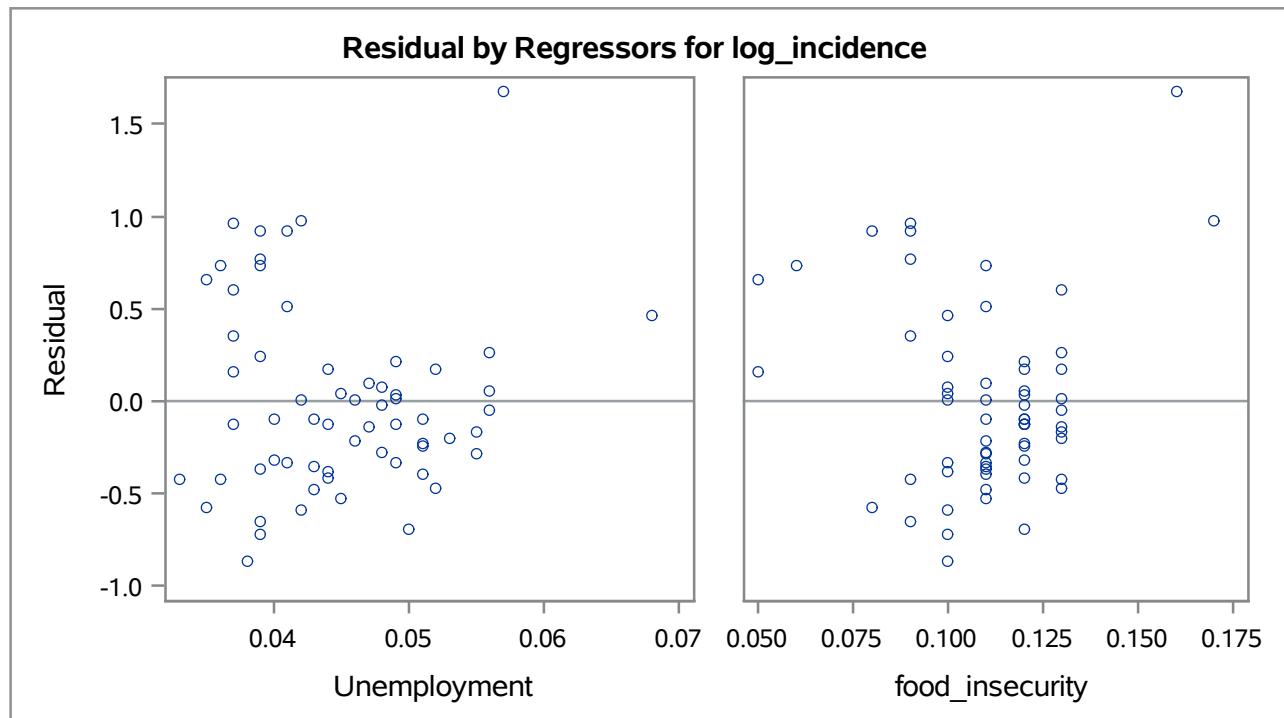


**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: log\_incidence**

Sum of Residuals	0
Sum of Squared Residuals	15.19056
Predicted Residual SS (PRESS)	17.96138



The REG Procedure  
Model: MODEL1



**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: log\_incidence**

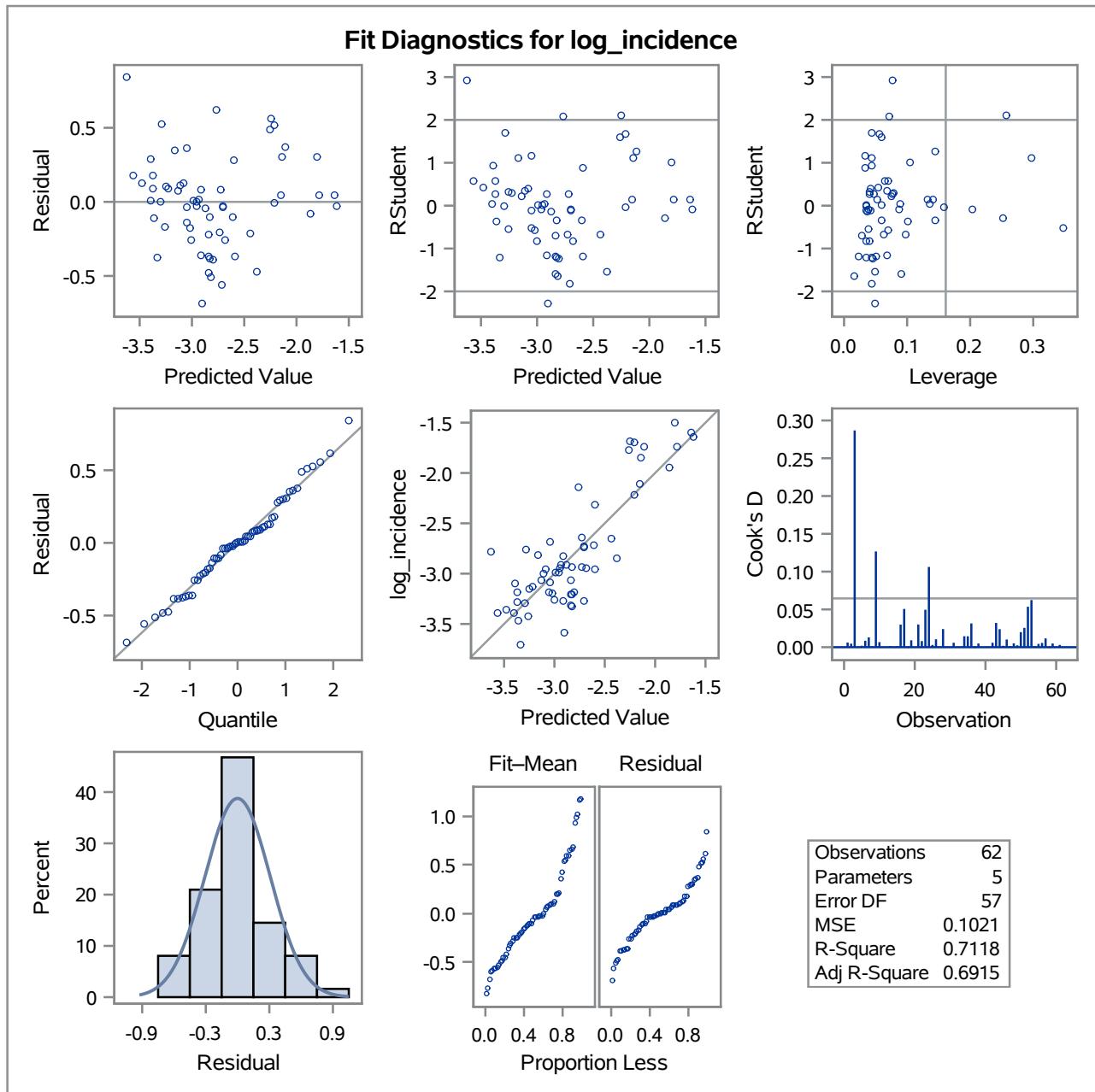
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	14.36454	3.59114	35.19	<.0001
Error	57	5.81726	0.10206		
Corrected Total	61	20.18180			

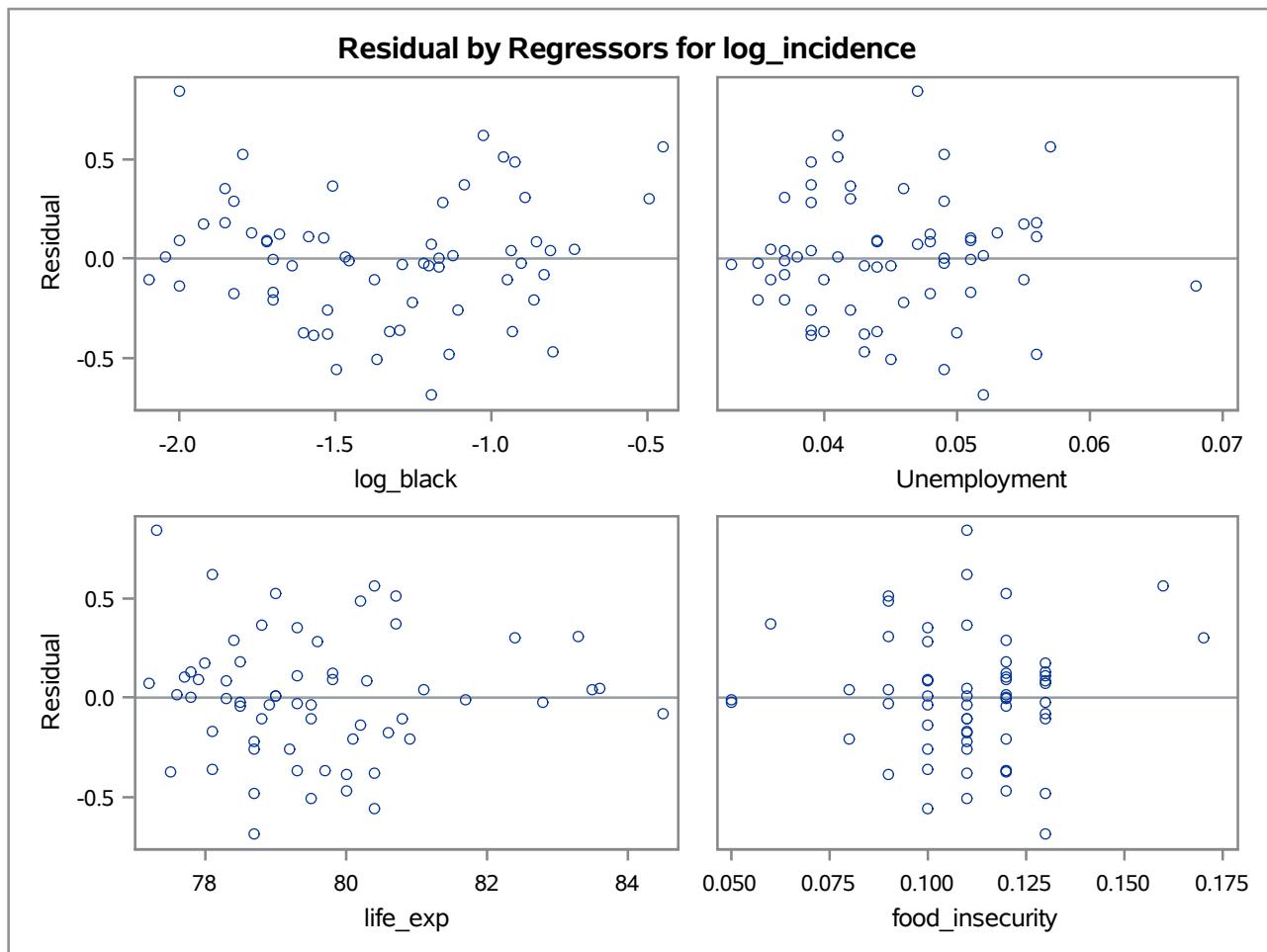
Root MSE	0.31946	R-Square	0.7118
Dependent Mean	-2.80241	Adj R-Sq	0.6915
Coeff Var	-11.39960		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	-12.34523	2.67860	-4.61	<.0001
log_black	1	0.80086	0.12885	6.22	<.0001
Unemployment	1	4.68838	8.05684	0.58	0.5629
life_exp	1	0.14045	0.03099	4.53	<.0001
food_insecurity	1	-6.88534	2.50207	-2.75	0.0079

**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: log\_incidence**



The REG Procedure  
Model: MODEL1  
Dependent Variable: log\_incidence



**The UNIVARIATE Procedure**  
**Variable: resid (Residual)**

Moments			
<b>N</b>	62	<b>Sum Weights</b>	62
<b>Mean</b>	0	<b>Sum Observations</b>	0
<b>Std Deviation</b>	0.30881209	<b>Variance</b>	0.0953649
<b>Skewness</b>	0.24630366	<b>Kurtosis</b>	0.15633306
<b>Uncorrected SS</b>	5.81725915	<b>Corrected SS</b>	5.81725915
<b>Coeff Variation</b>	.	<b>Std Error Mean</b>	0.03921917

Basic Statistical Measures			
Location		Variability	
<b>Mean</b>	0.000000	<b>Std Deviation</b>	0.30881
<b>Median</b>	0.001310	<b>Variance</b>	0.09536
<b>Mode</b>	.	<b>Range</b>	1.53047
		<b>Interquartile Range</b>	0.33540

Tests for Location: Mu0=0				
Test	Statistic	p Value		
<b>Student's t</b>	t	0	<b>Pr &gt;  t </b>	1.0000
<b>Sign</b>	M	0	<b>Pr &gt;=  M </b>	1.0000
<b>Signed Rank</b>	S	-14.5	<b>Pr &gt;=  S </b>	0.9200

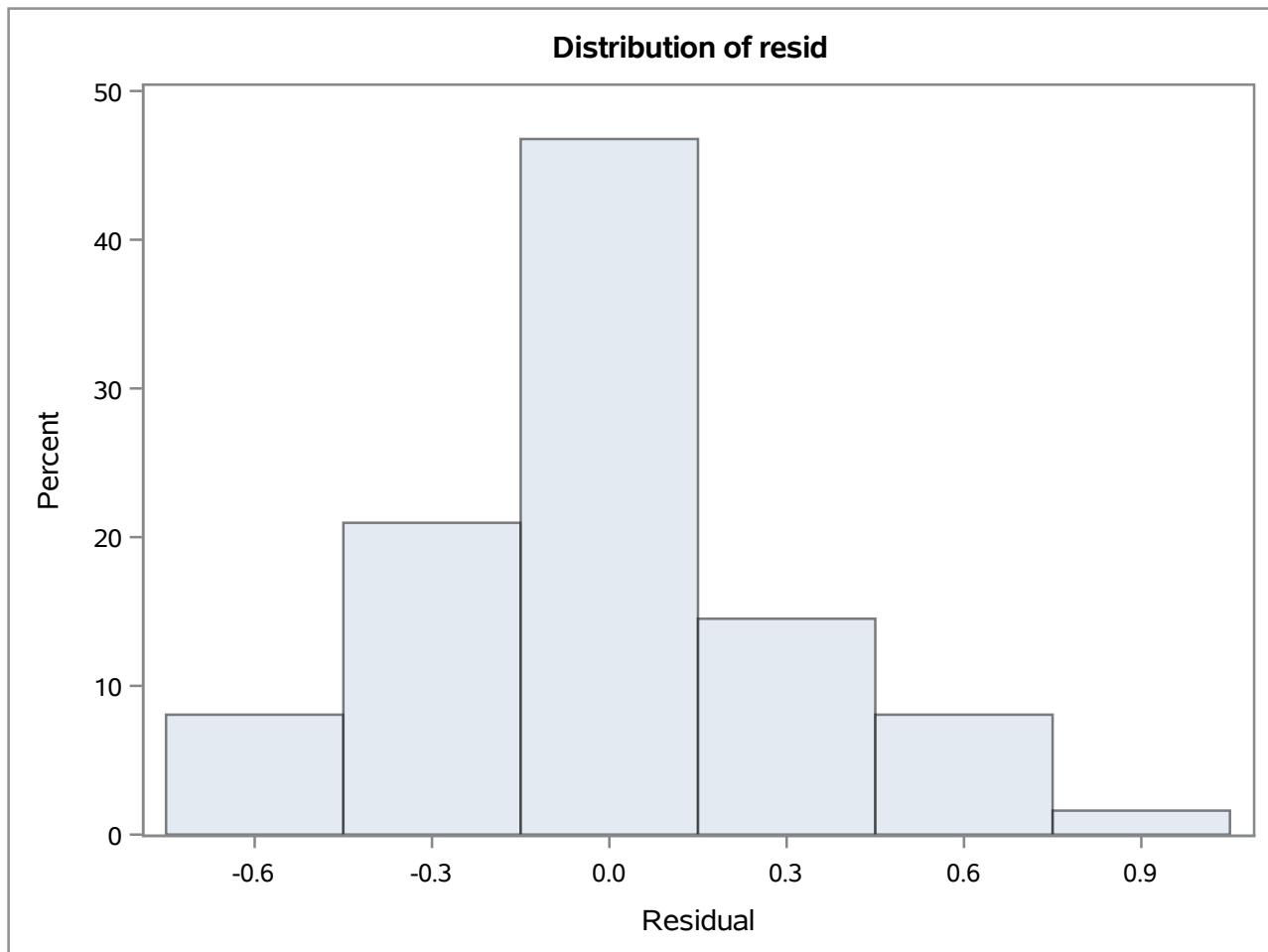
Tests for Normality				
Test	Statistic	p Value		
<b>Shapiro-Wilk</b>	W	0.985112	<b>Pr &lt; W</b>	0.6555
<b>Kolmogorov-Smirnov</b>	D	0.097015	<b>Pr &gt; D</b>	>0.1500
<b>Cramer-von Mises</b>	W-Sq	0.076409	<b>Pr &gt; W-Sq</b>	0.2322
<b>Anderson-Darling</b>	A-Sq	0.408856	<b>Pr &gt; A-Sq</b>	>0.2500

Quantiles (Definition 5)	
Level	Quantile
<b>100% Max</b>	0.84264197
<b>99%</b>	0.84264197
<b>95%</b>	0.52277387
<b>90%</b>	0.37193700
<b>75% Q3</b>	0.12825871
<b>50% Median</b>	0.00131012
<b>25% Q1</b>	-0.20714006

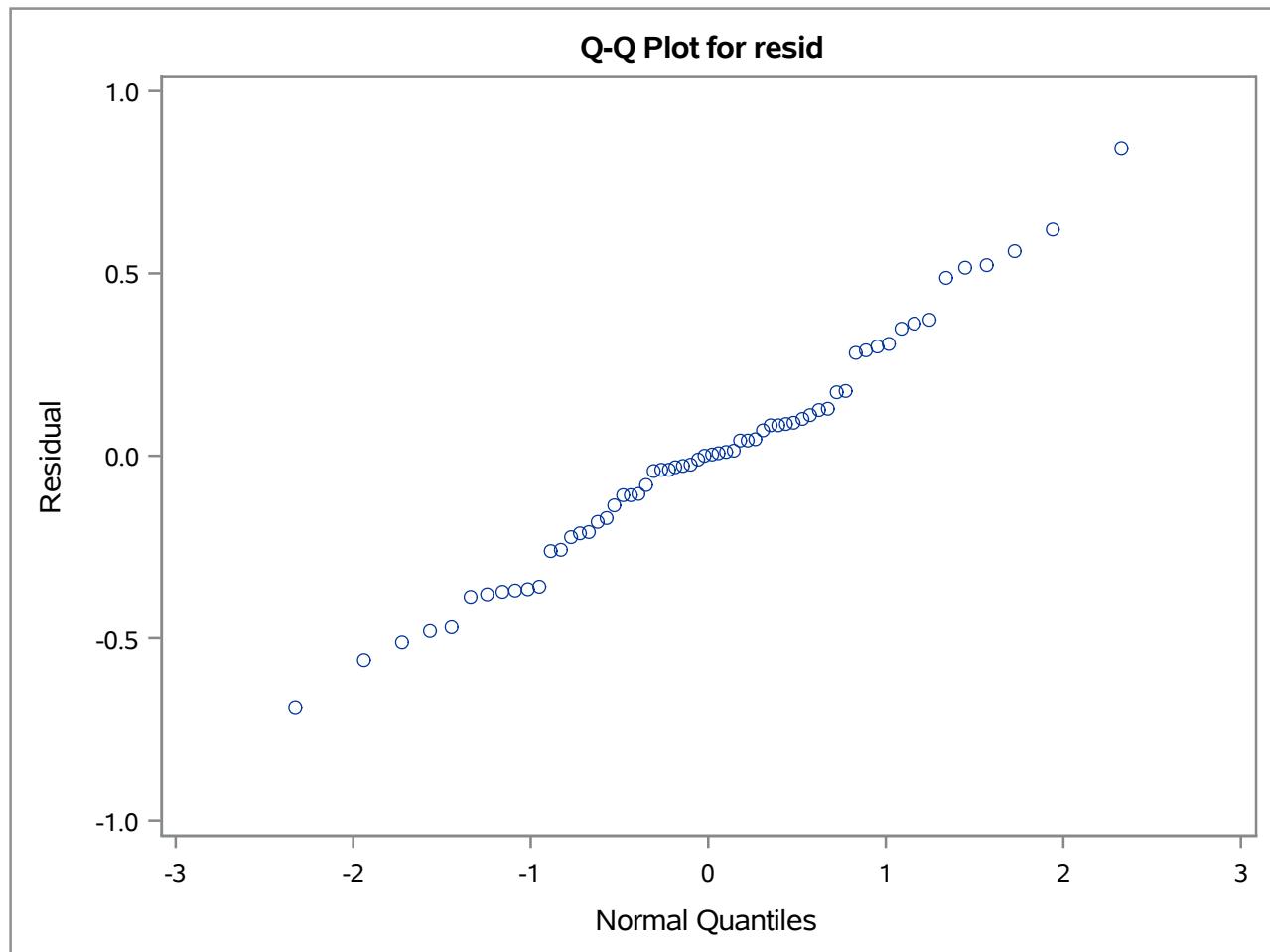
**The UNIVARIATE Procedure**  
**Variable: resid (Residual)**

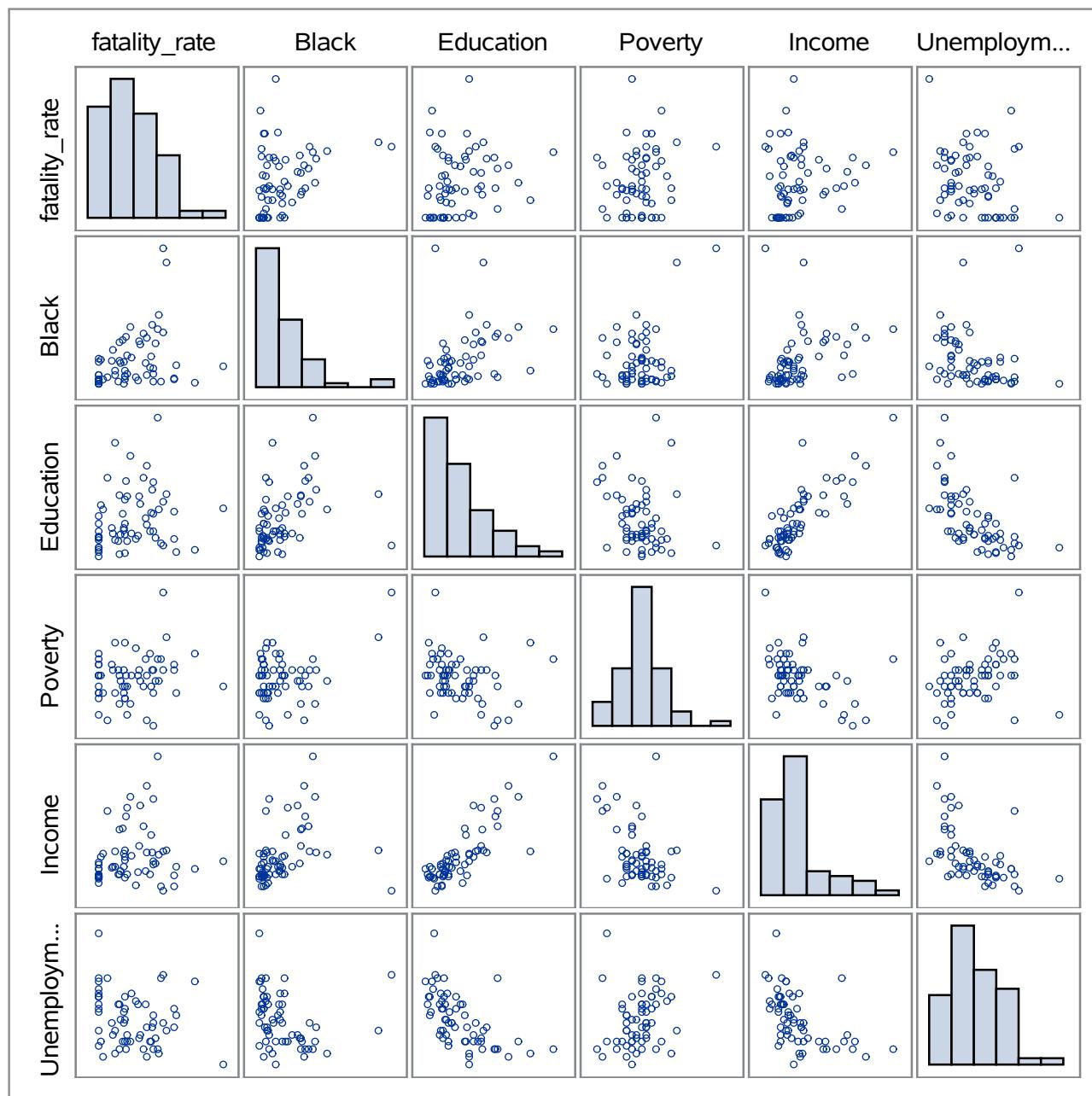
Quantiles (Definition 5)	
Level	Quantile
10%	-0.38100104
5%	-0.48081401
1%	-0.68782412
0% Min	-0.68782412

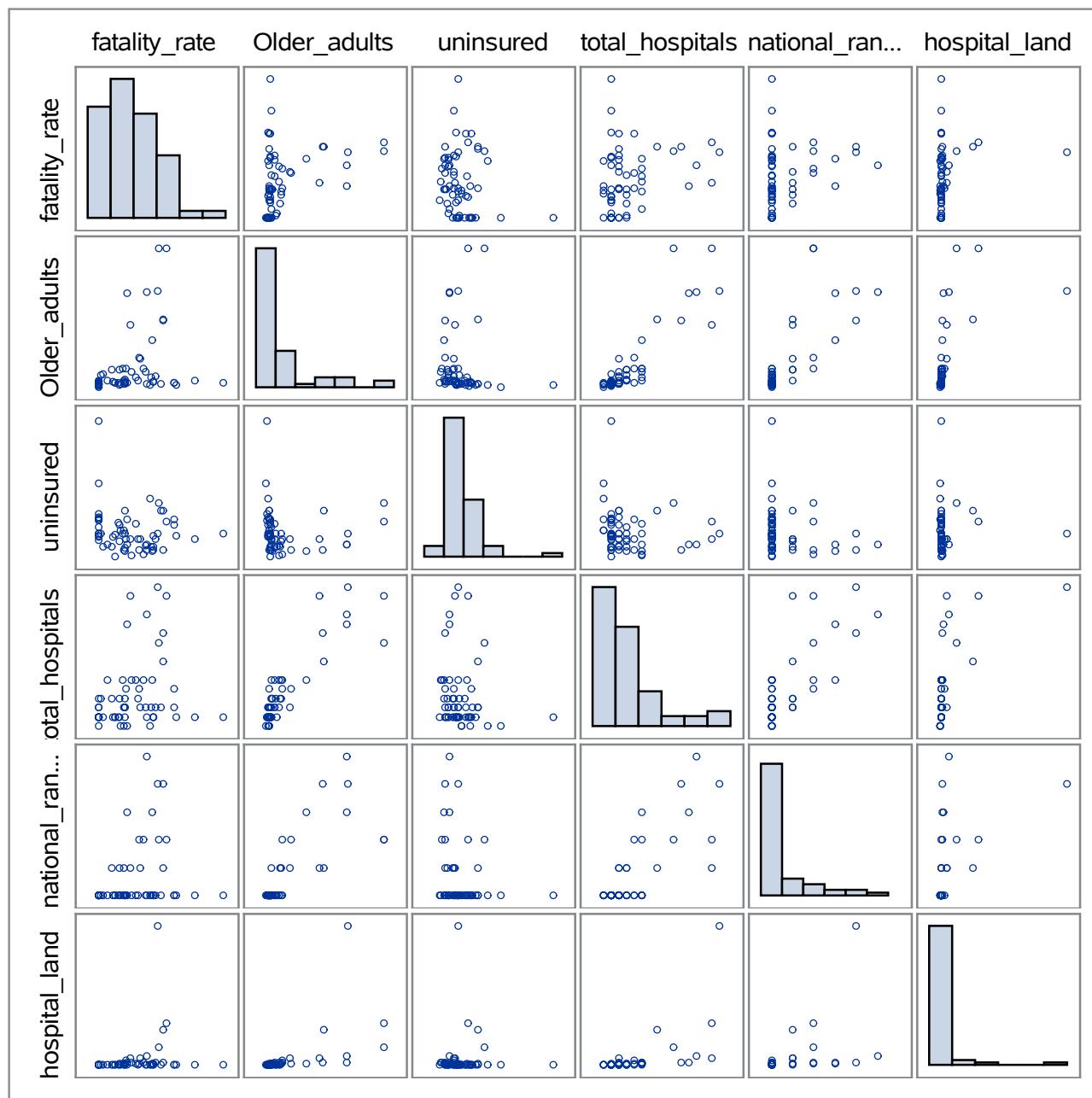
Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
-0.687824	17	0.514127	43
-0.561273	16	0.522774	51
-0.510356	6	0.560011	3
-0.480814	23	0.619776	53
-0.471820	28	0.842642	9

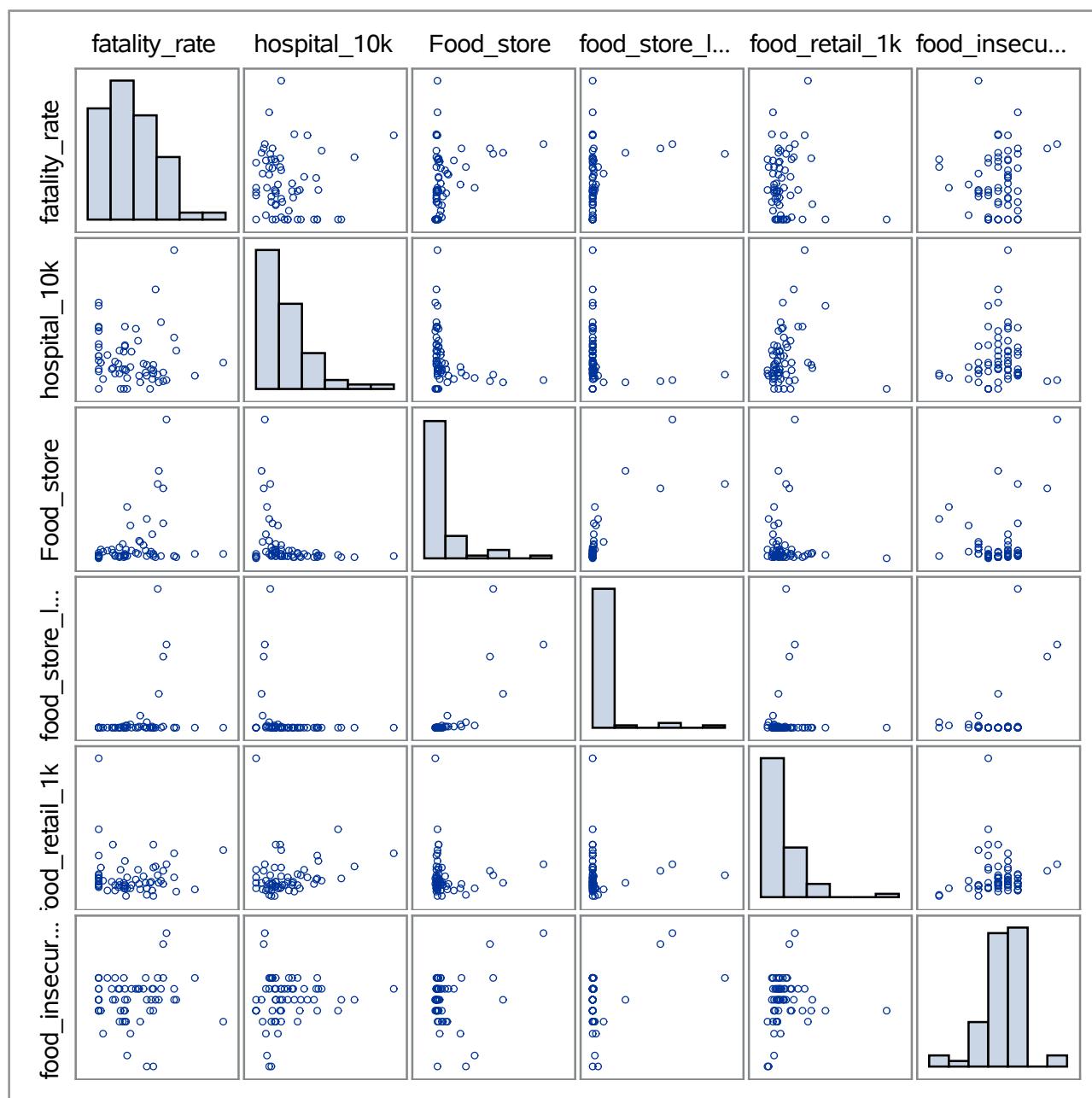
**The UNIVARIATE Procedure**

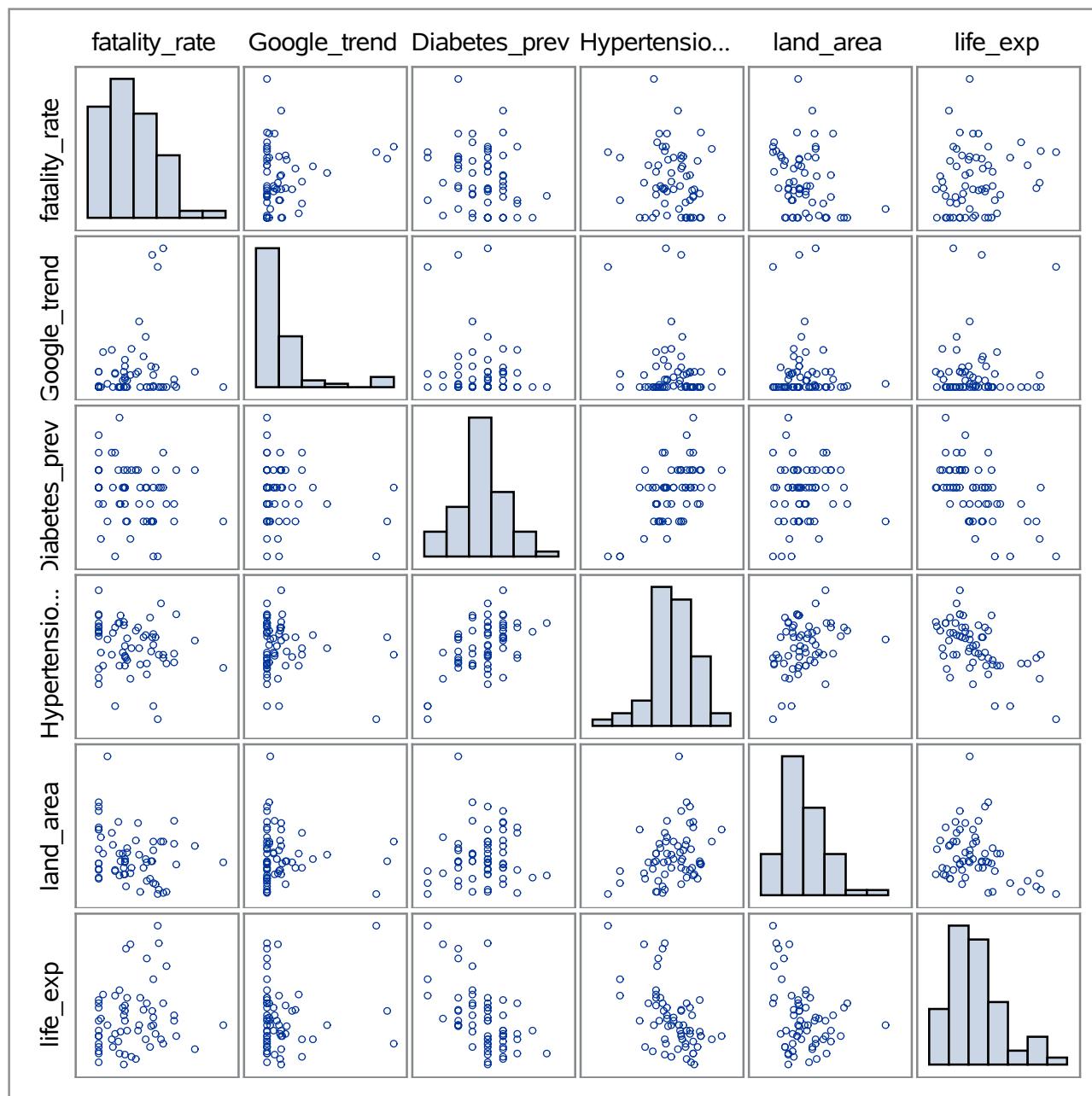
## The UNIVARIATE Procedure

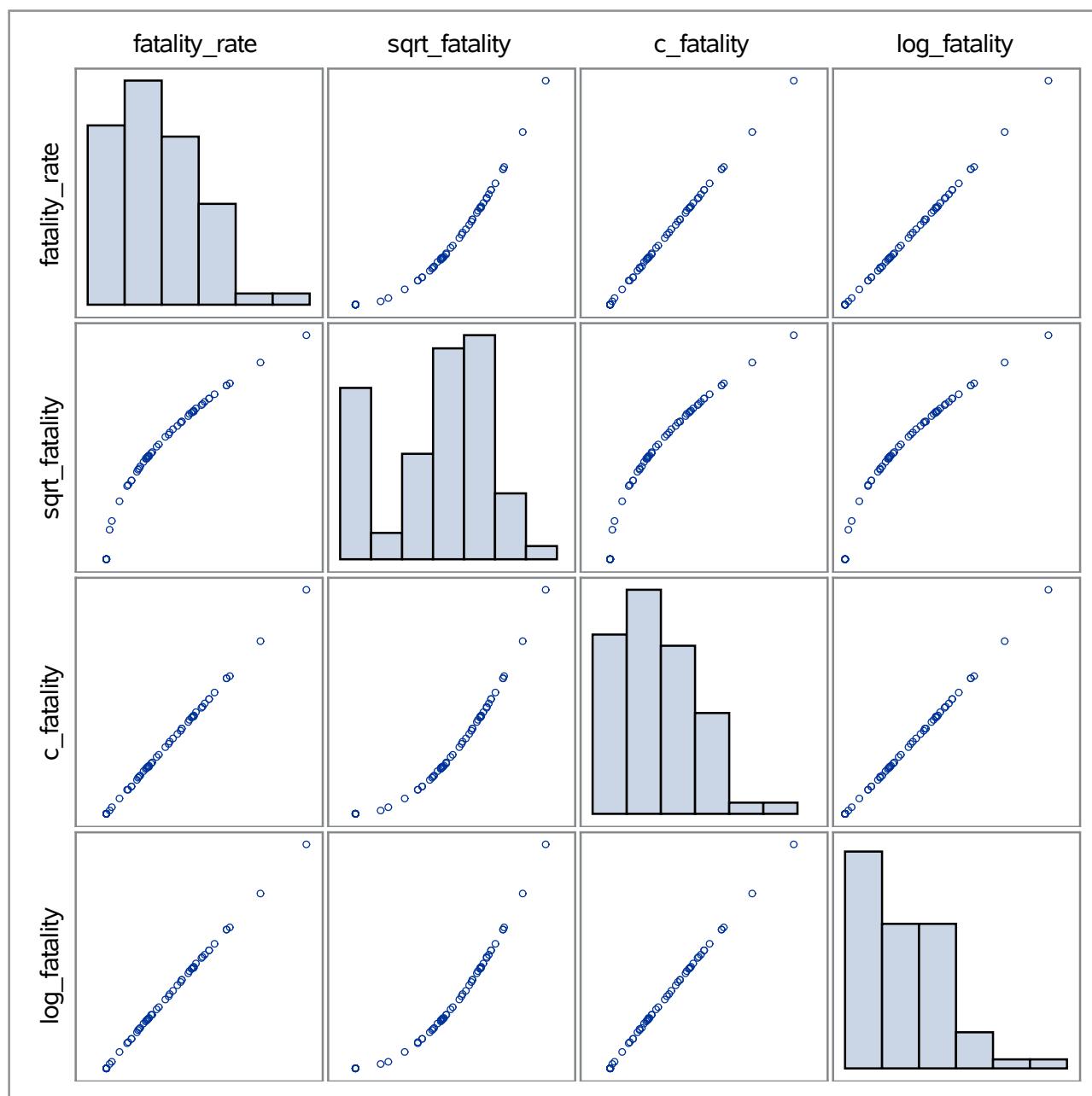












**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: sqrt\_fatality**

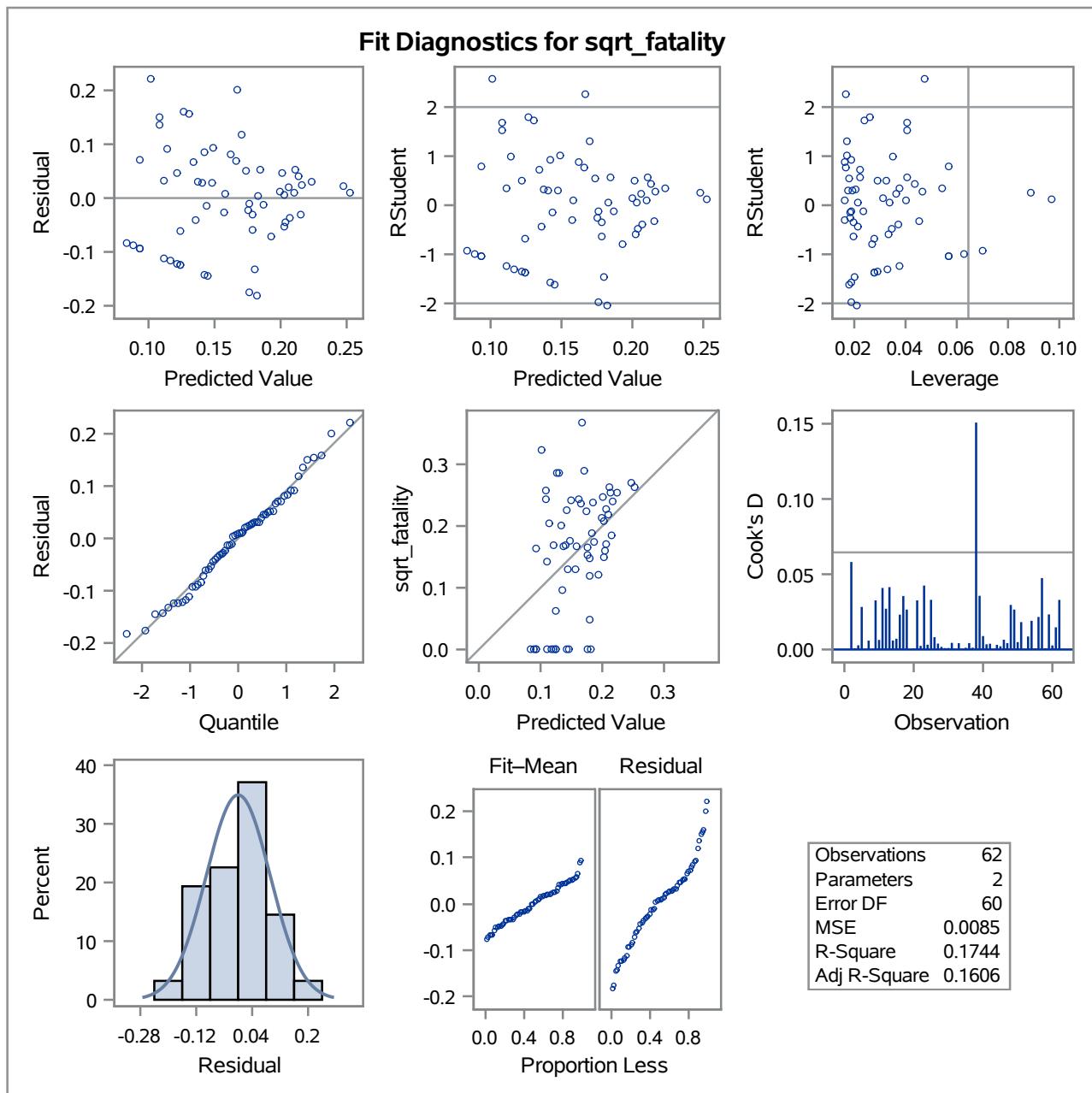
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	0.10757	0.10757	12.67	0.0007
Error	60	0.50927	0.00849		
Corrected Total	61	0.61684			

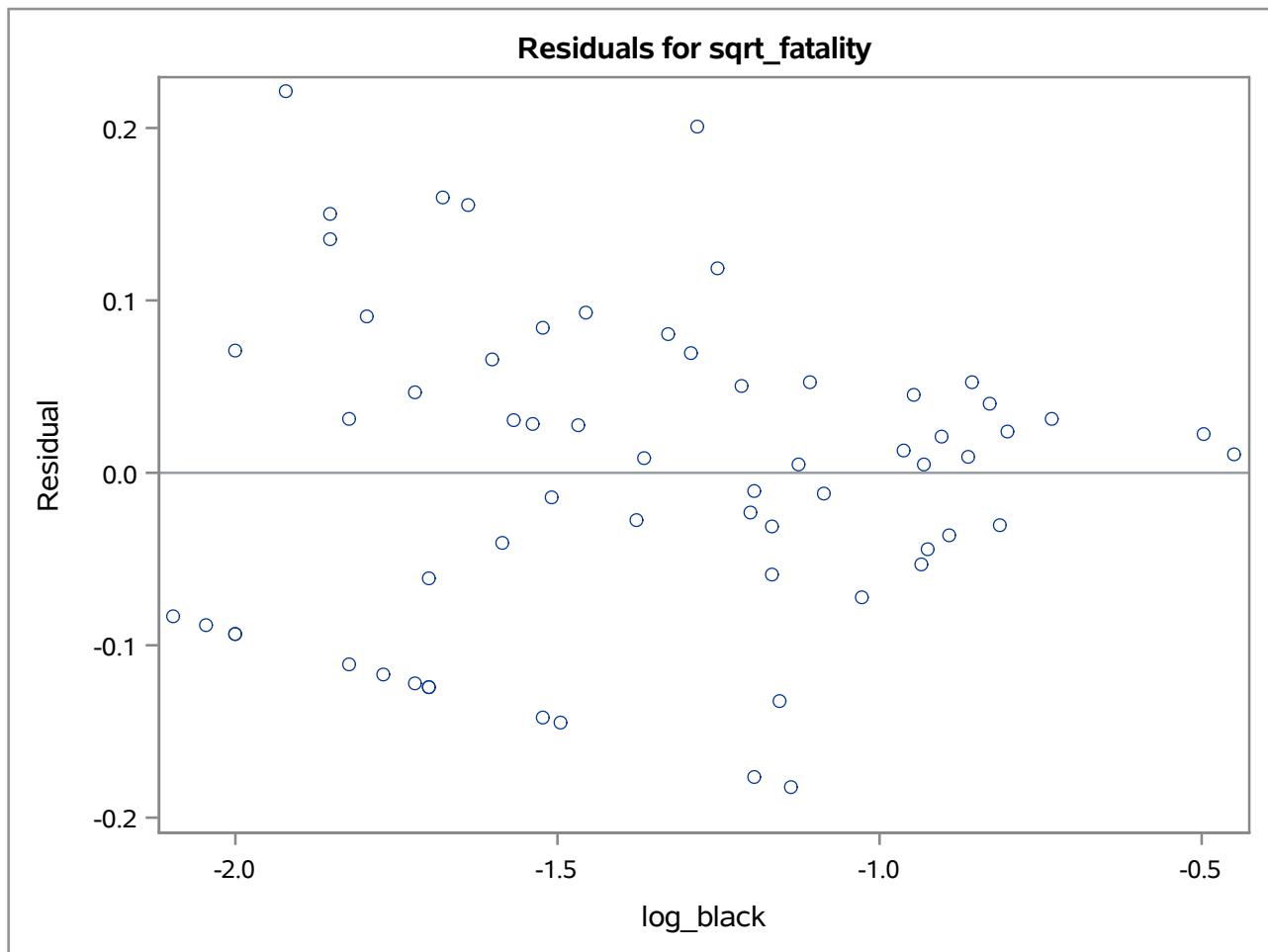
Root MSE	0.09213	R-Square	0.1744
Dependent Mean	0.15931	Adj R-Sq	0.1606
Coeff Var	57.83004		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	0.29878	0.04089	7.31	<.0001
log_black	1	0.10280	0.02887	3.56	0.0007

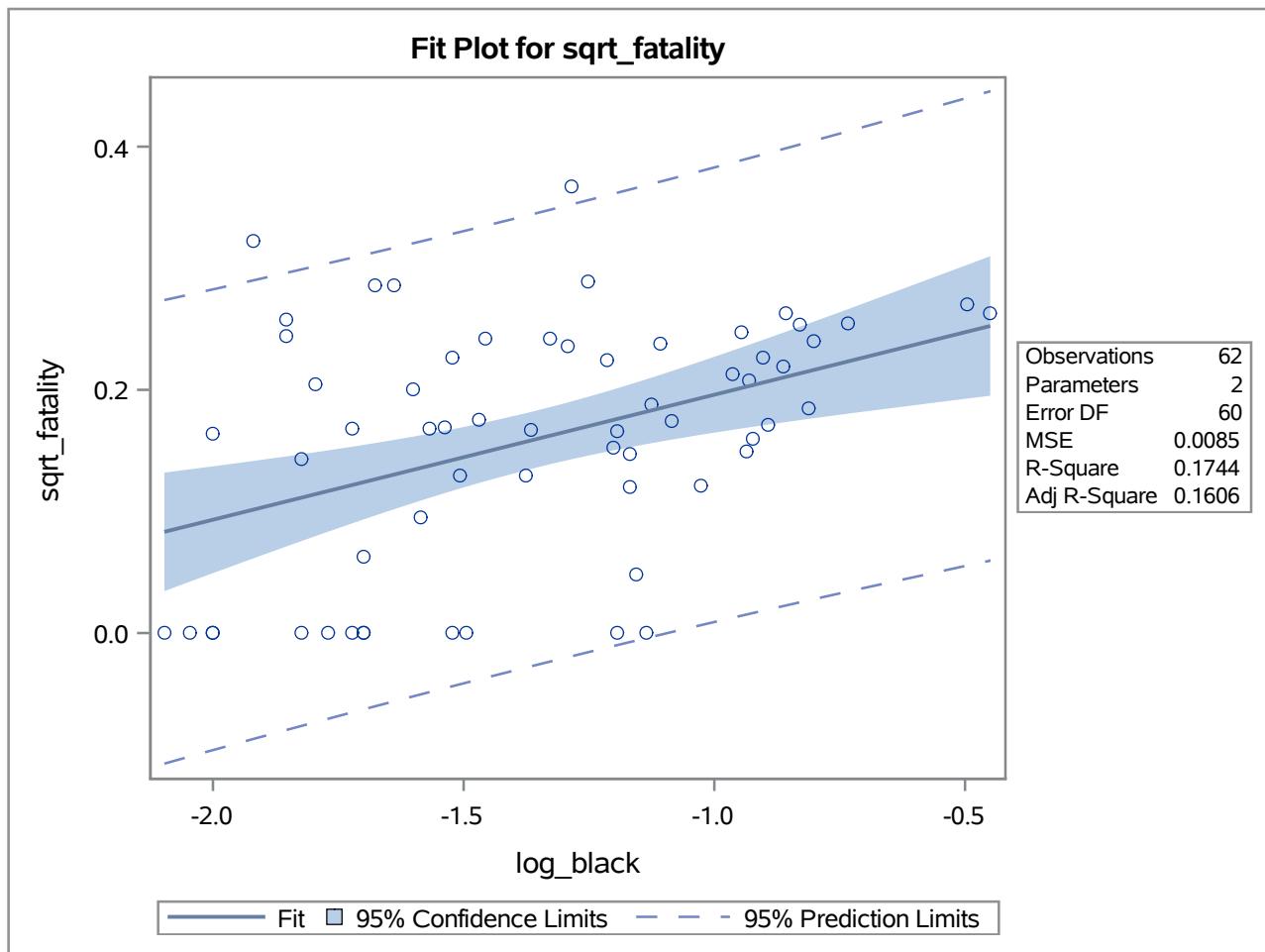
**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: sqrt\_fatality**



The REG Procedure  
Model: MODEL1  
Dependent Variable: sqrt\_fatality



The REG Procedure  
Model: MODEL1  
Dependent Variable: sqrt\_fatality



**The REG Procedure**  
**Model: MODEL2**  
**Dependent Variable: sqrt\_fatality**

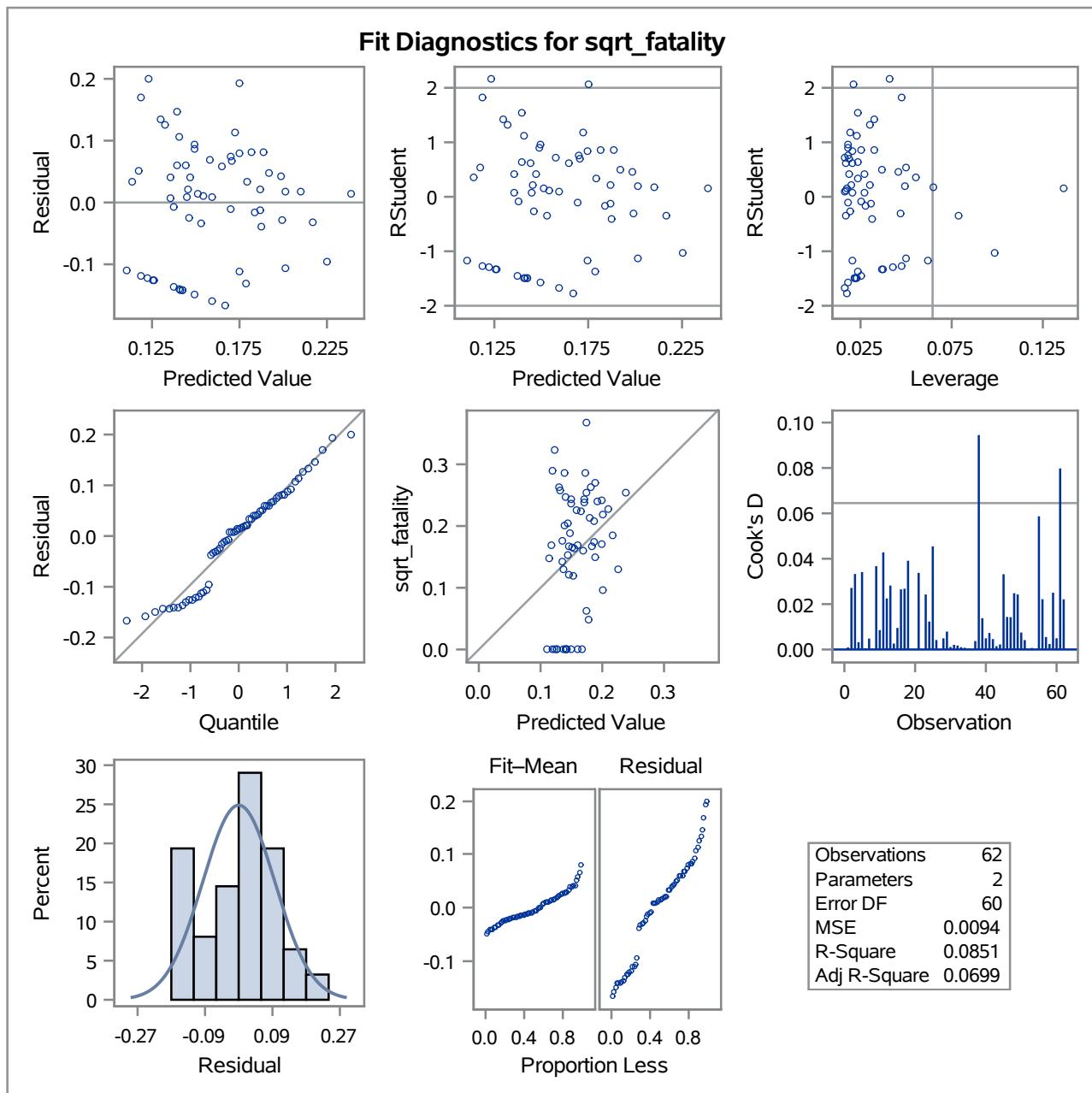
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	0.05251	0.05251	5.58	0.0214
Error	60	0.56433	0.00941		
Corrected Total	61	0.61684			

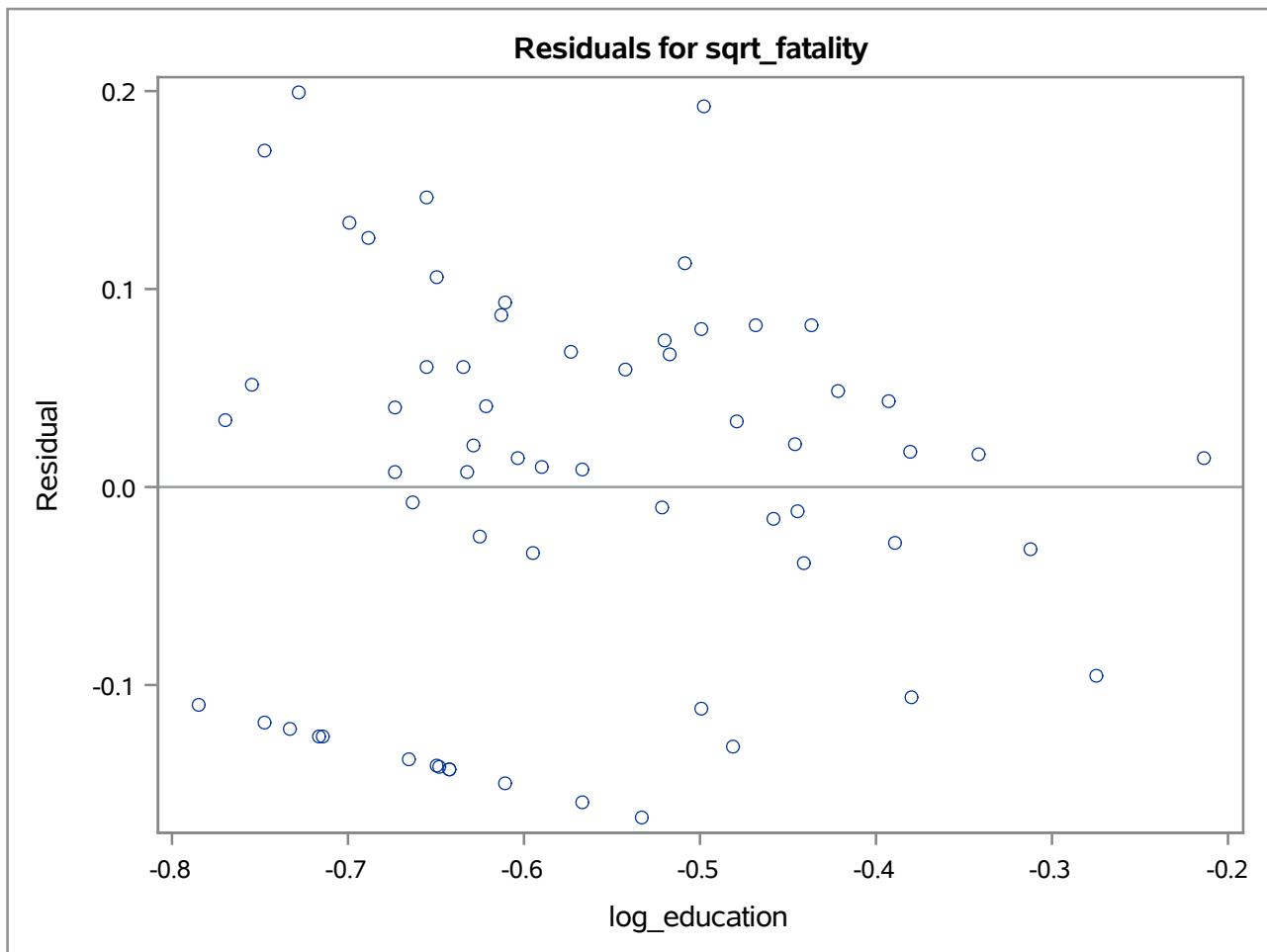
Root MSE	0.09698	R-Square	0.0851
Dependent Mean	0.15931	Adj R-Sq	0.0699
Coeff Var	60.87600		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	0.28691	0.05539	5.18	<.0001
log_education	1	0.22490	0.09518	2.36	0.0214

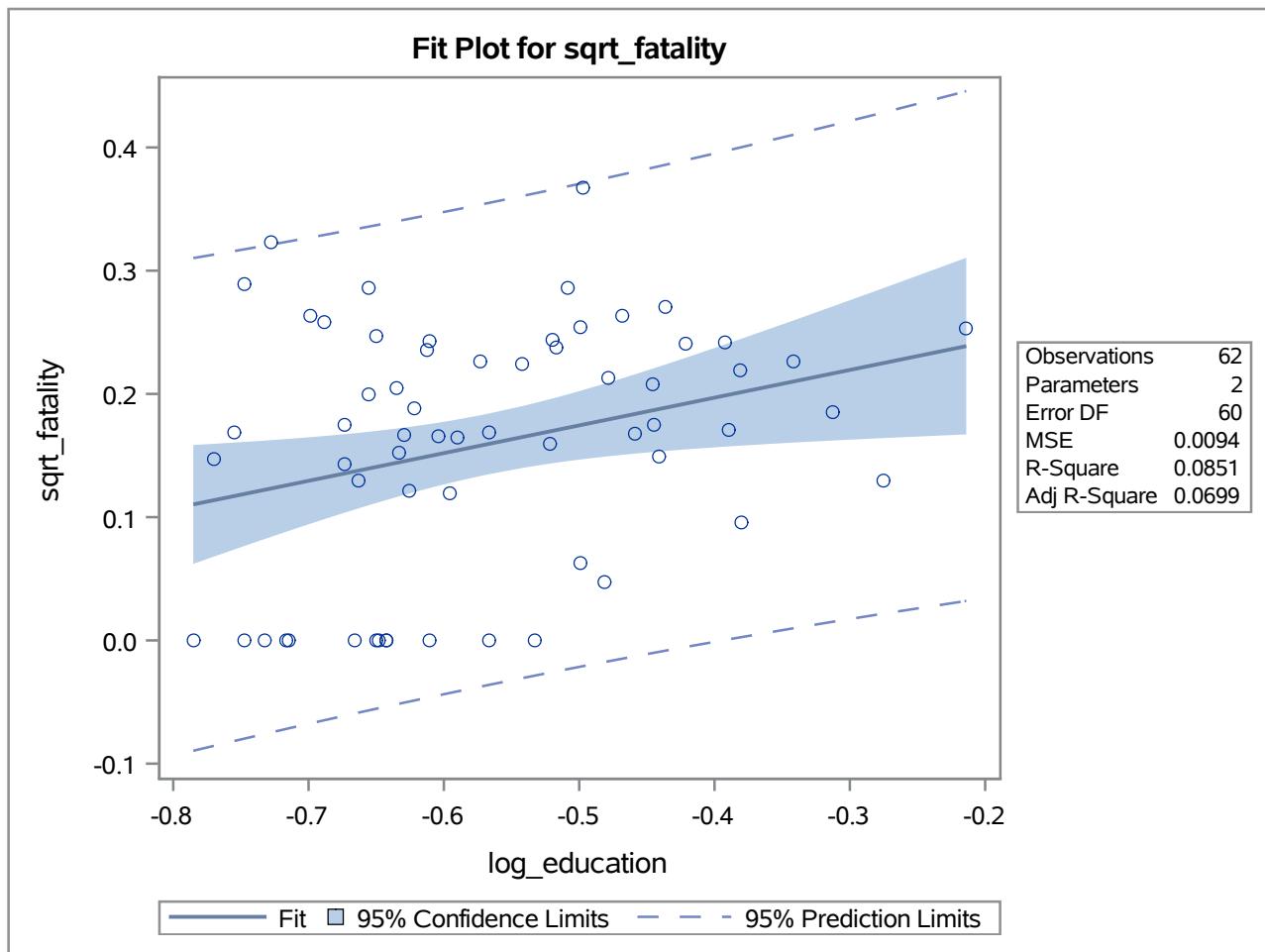
**The REG Procedure**  
**Model: MODEL2**  
**Dependent Variable: sqrt\_fatality**



The REG Procedure  
Model: MODEL2  
Dependent Variable: sqrt\_fatality



The REG Procedure  
Model: MODEL2  
Dependent Variable: sqrt\_fatality



**The REG Procedure**  
**Model: MODEL3**  
**Dependent Variable: sqrt\_fatality**

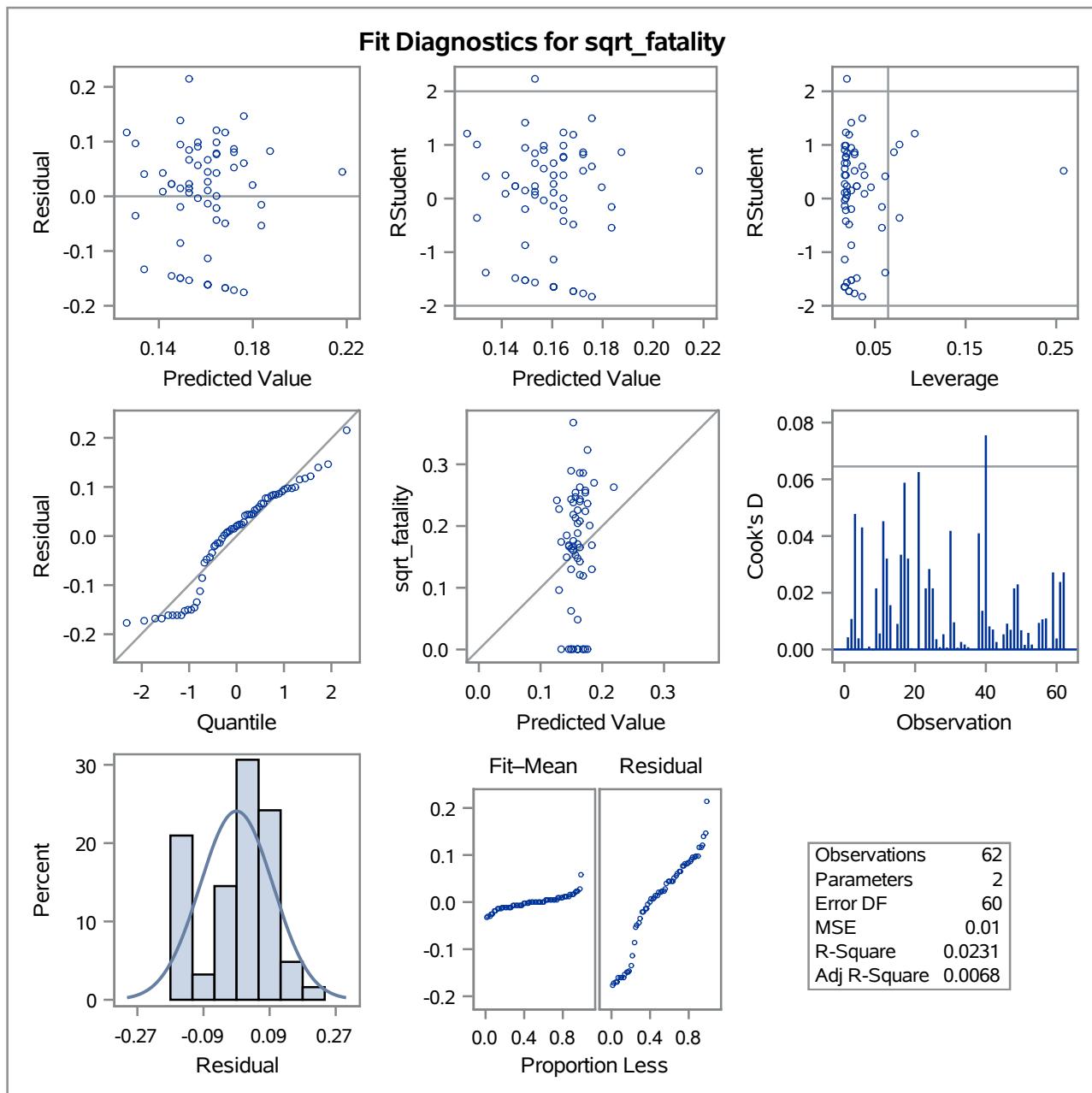
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	0.01425	0.01425	1.42	0.2382
Error	60	0.60259	0.01004		
Corrected Total	61	0.61684			

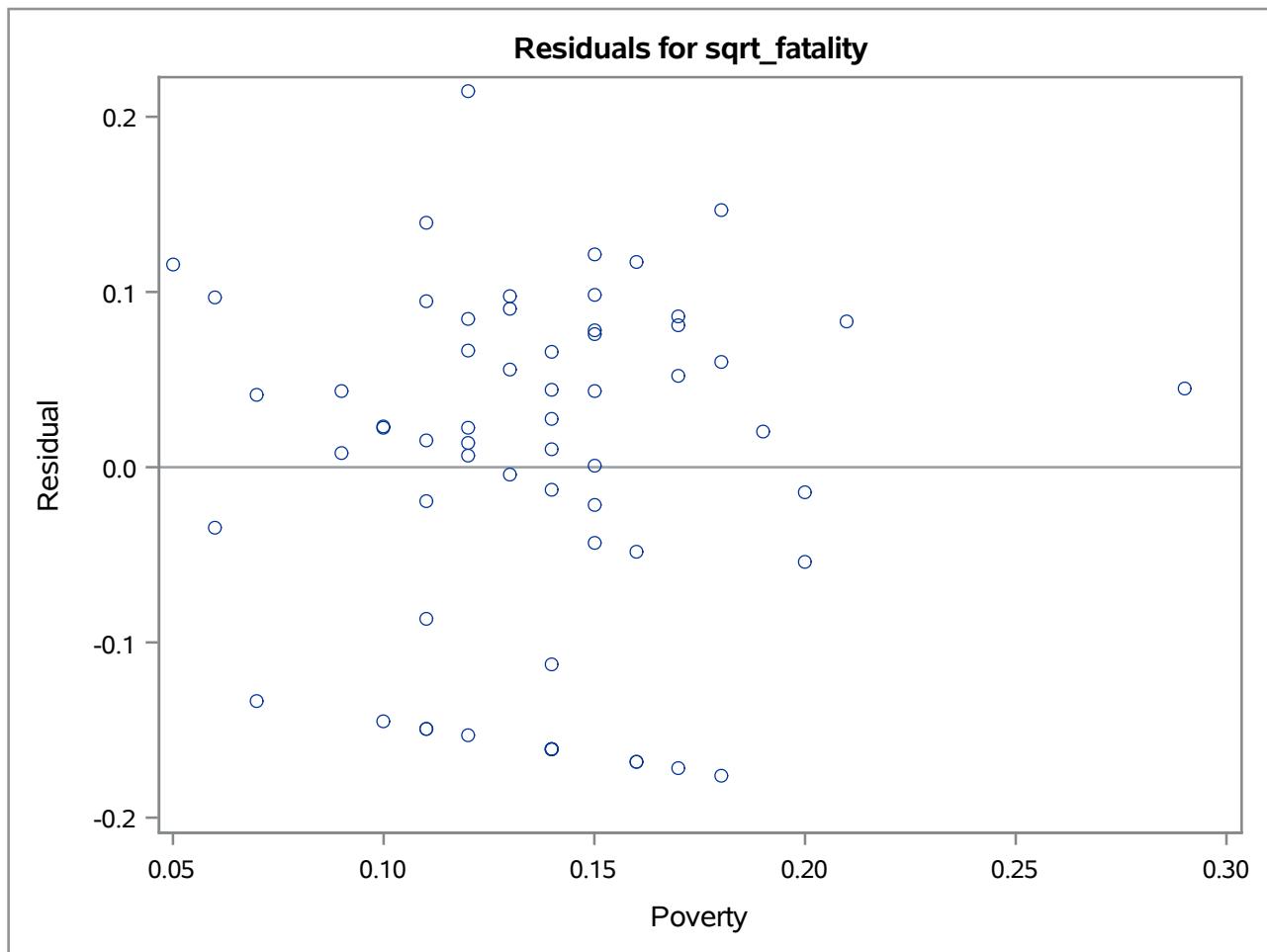
Root MSE	0.10022	R-Square	0.0231
Dependent Mean	0.15931	Adj R-Sq	0.0068
Coeff Var	62.90579		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	0.10699	0.04572	2.34	0.0226
Poverty	1	0.38297	0.32146	1.19	0.2382

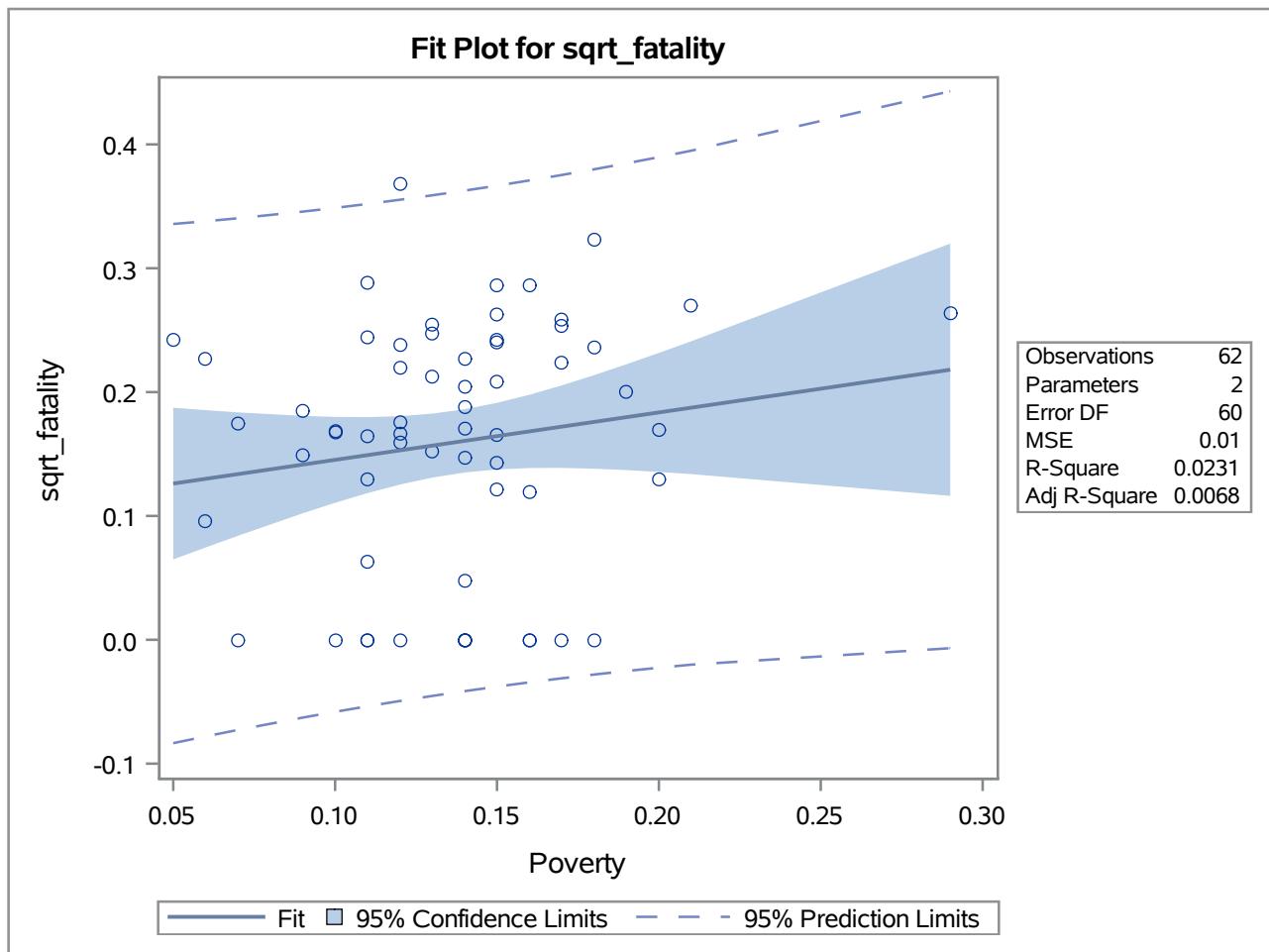
**The REG Procedure**  
**Model: MODEL3**  
**Dependent Variable: sqrt\_fatality**



The REG Procedure  
Model: MODEL3  
Dependent Variable: sqrt\_fatality



The REG Procedure  
Model: MODEL3  
Dependent Variable: sqrt\_fatality



**The REG Procedure**  
**Model: MODEL4**  
**Dependent Variable: sqrt\_fatality**

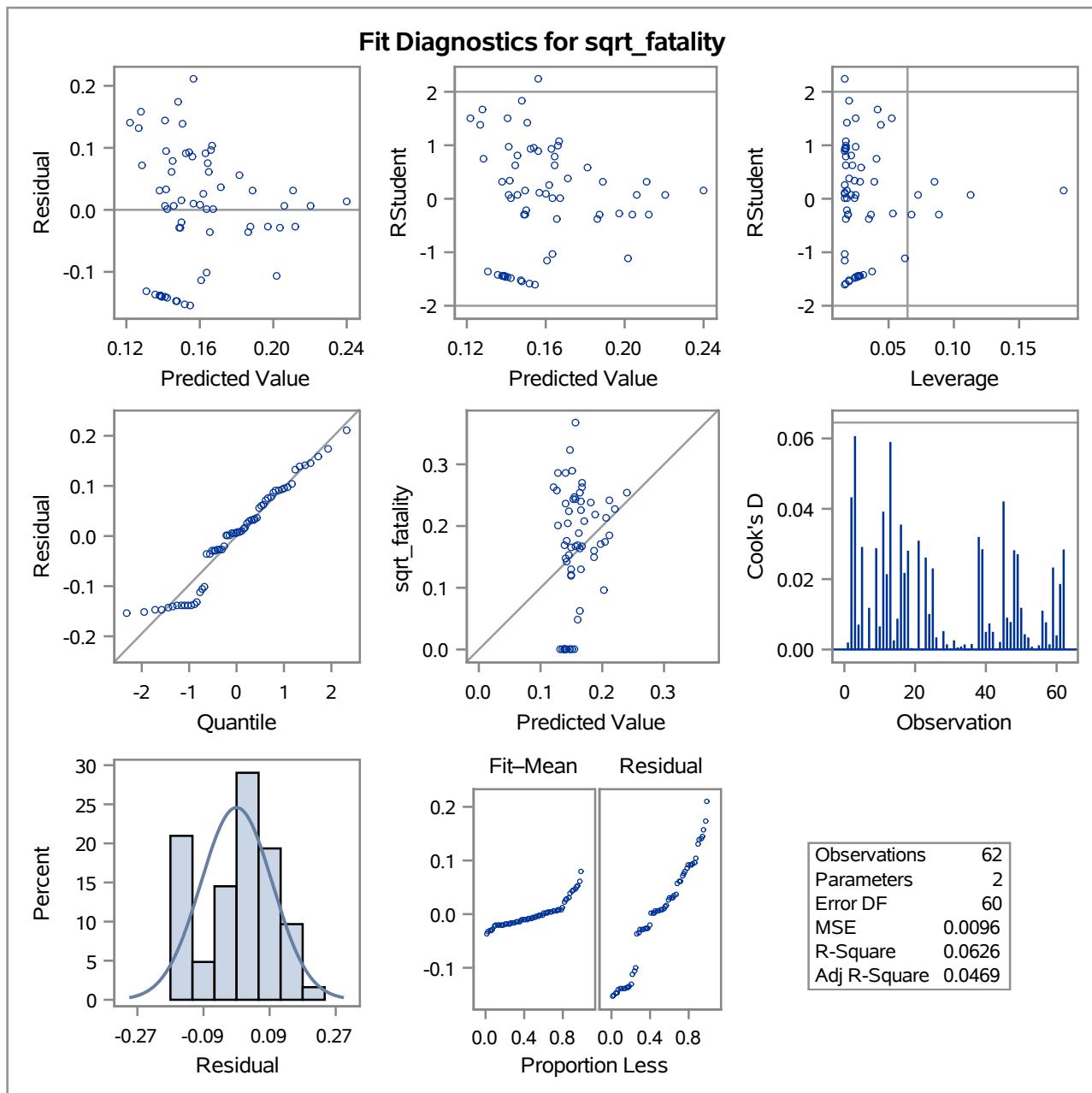
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	0.03859	0.03859	4.00	0.0499
Error	60	0.57826	0.00964		
Corrected Total	61	0.61684			

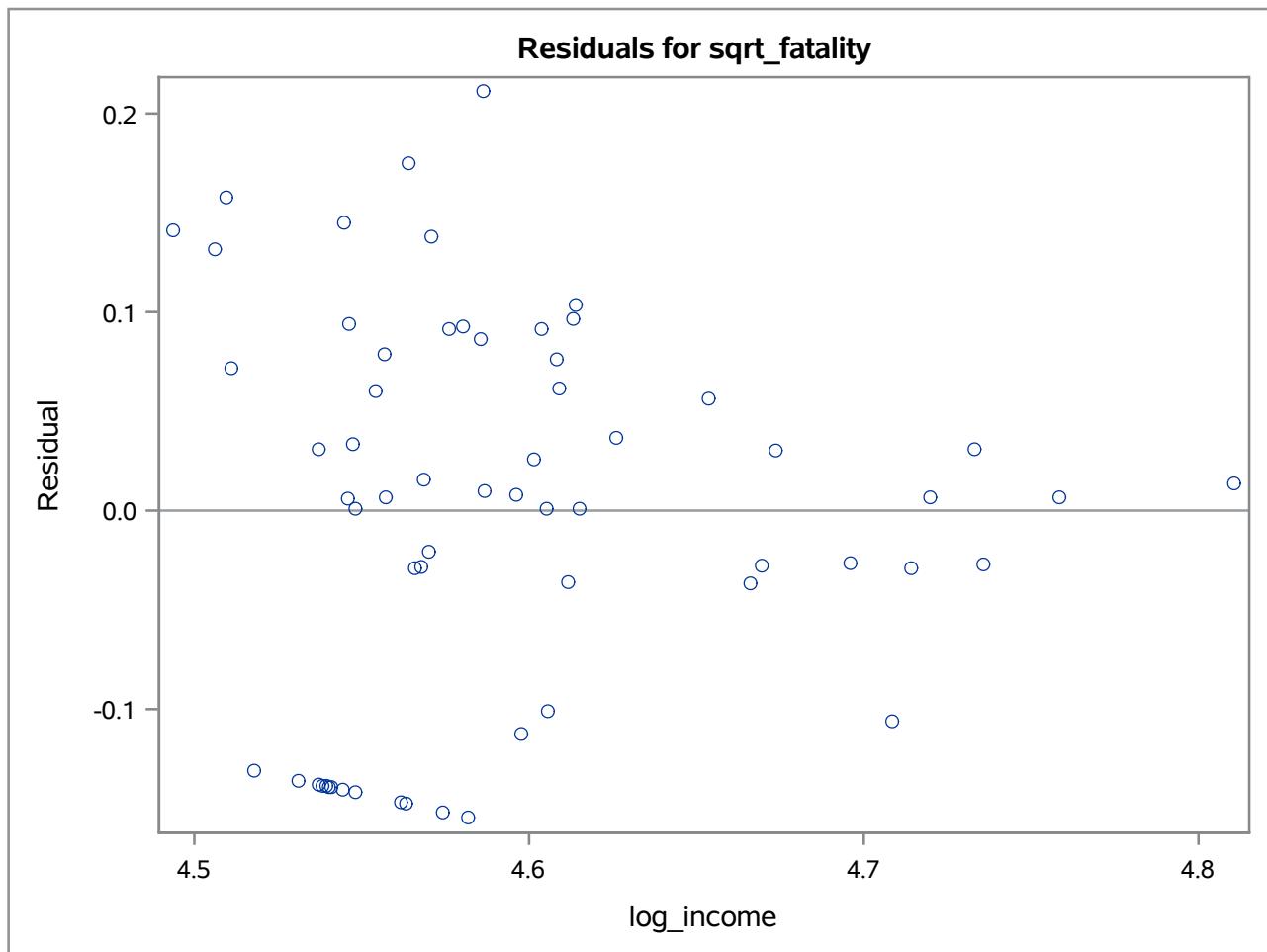
Root MSE	0.09817	R-Square	0.0626
Dependent Mean	0.15931	Adj R-Sq	0.0469
Coeff Var	61.62270		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	-1.55025	0.85448	-1.81	0.0746
log_income	1	0.37211	0.18597	2.00	0.0499

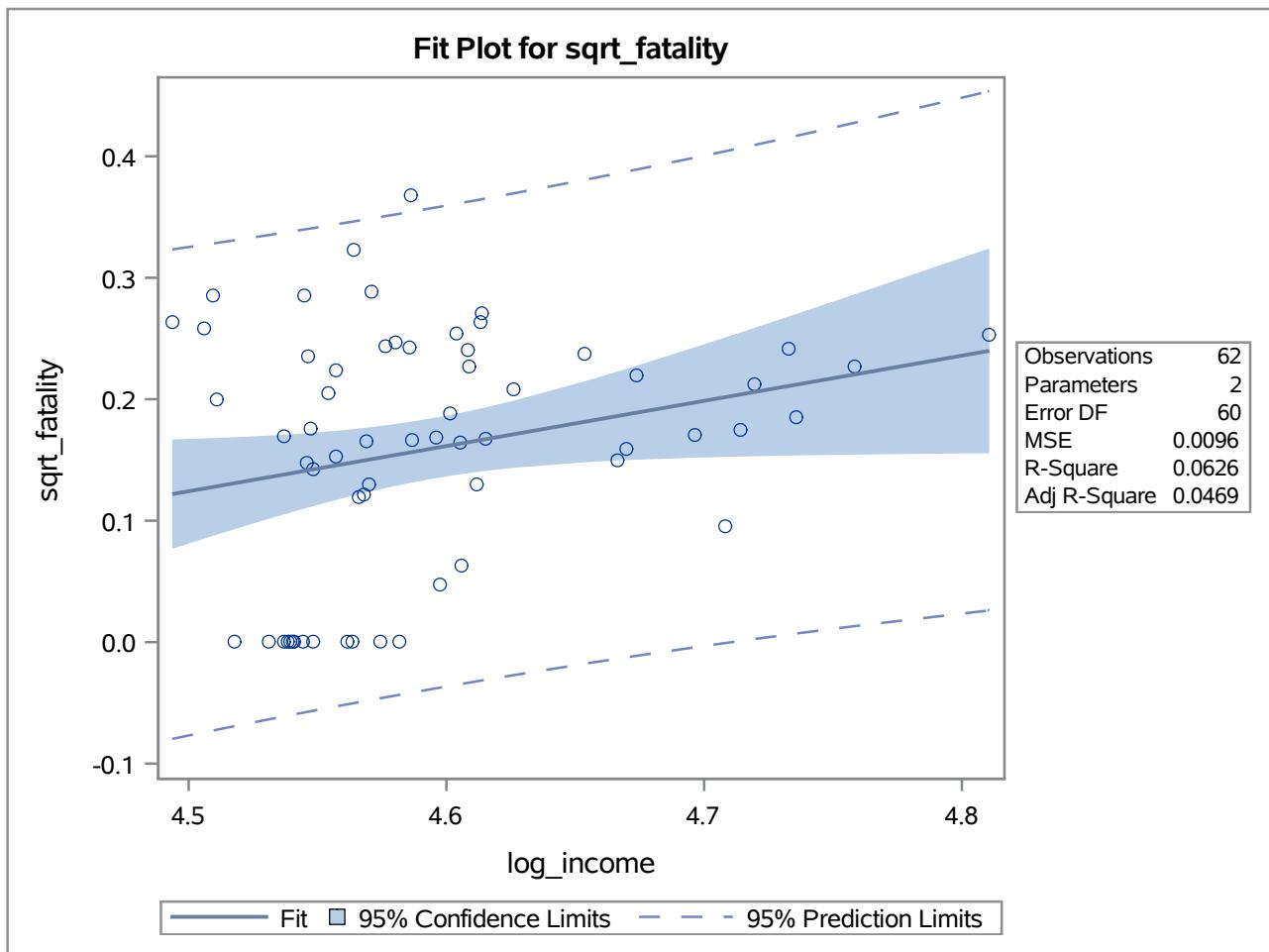
**The REG Procedure**  
**Model: MODEL4**  
**Dependent Variable: sqrt\_fatality**



The REG Procedure  
Model: MODEL4  
Dependent Variable: sqrt\_fatality



The REG Procedure  
Model: MODEL4  
Dependent Variable: sqrt\_fatality



**The REG Procedure**  
**Model: MODEL5**  
**Dependent Variable: sqrt\_fatality**

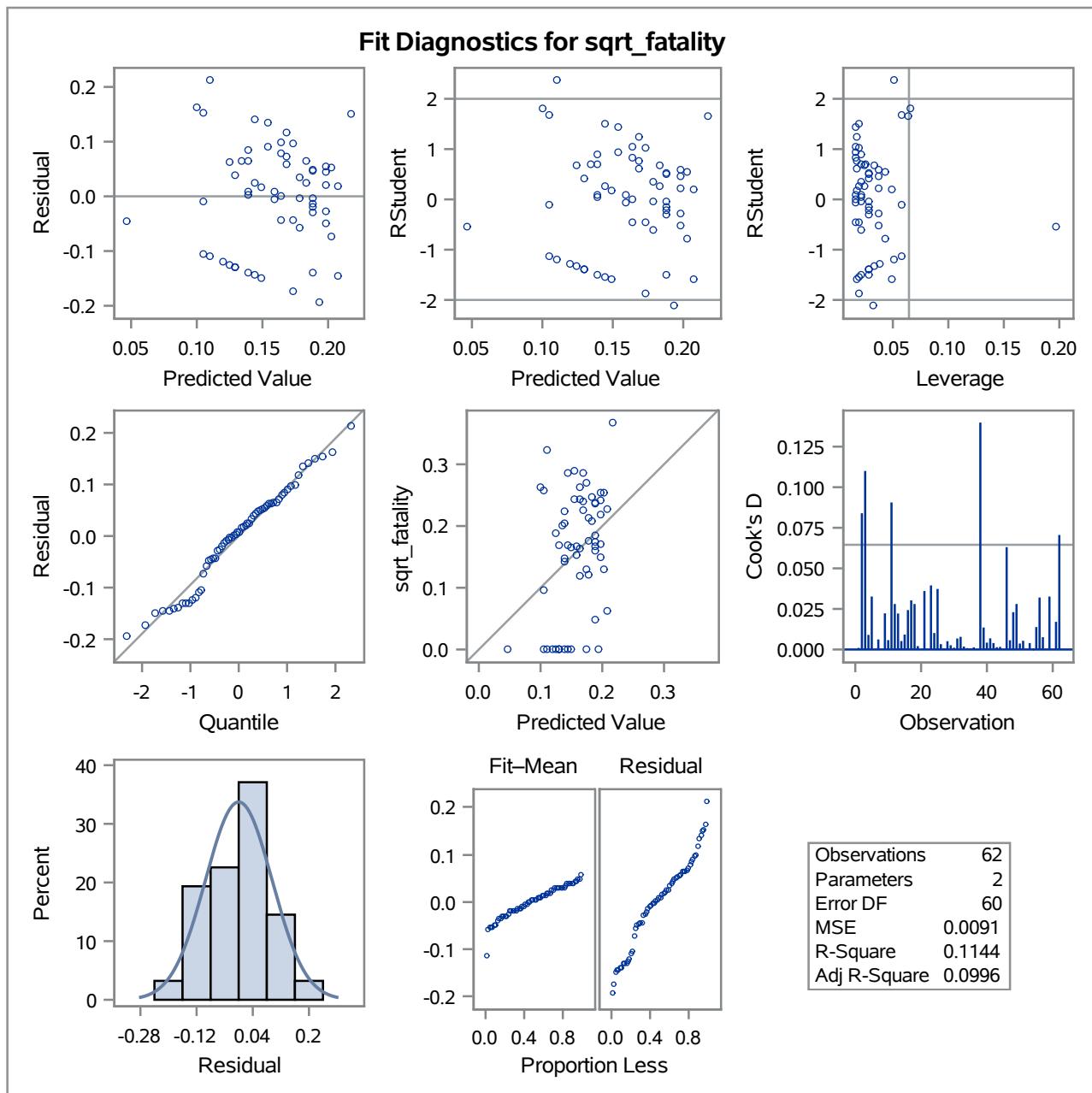
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	0.07057	0.07057	7.75	0.0072
Error	60	0.54627	0.00910		
Corrected Total	61	0.61684			

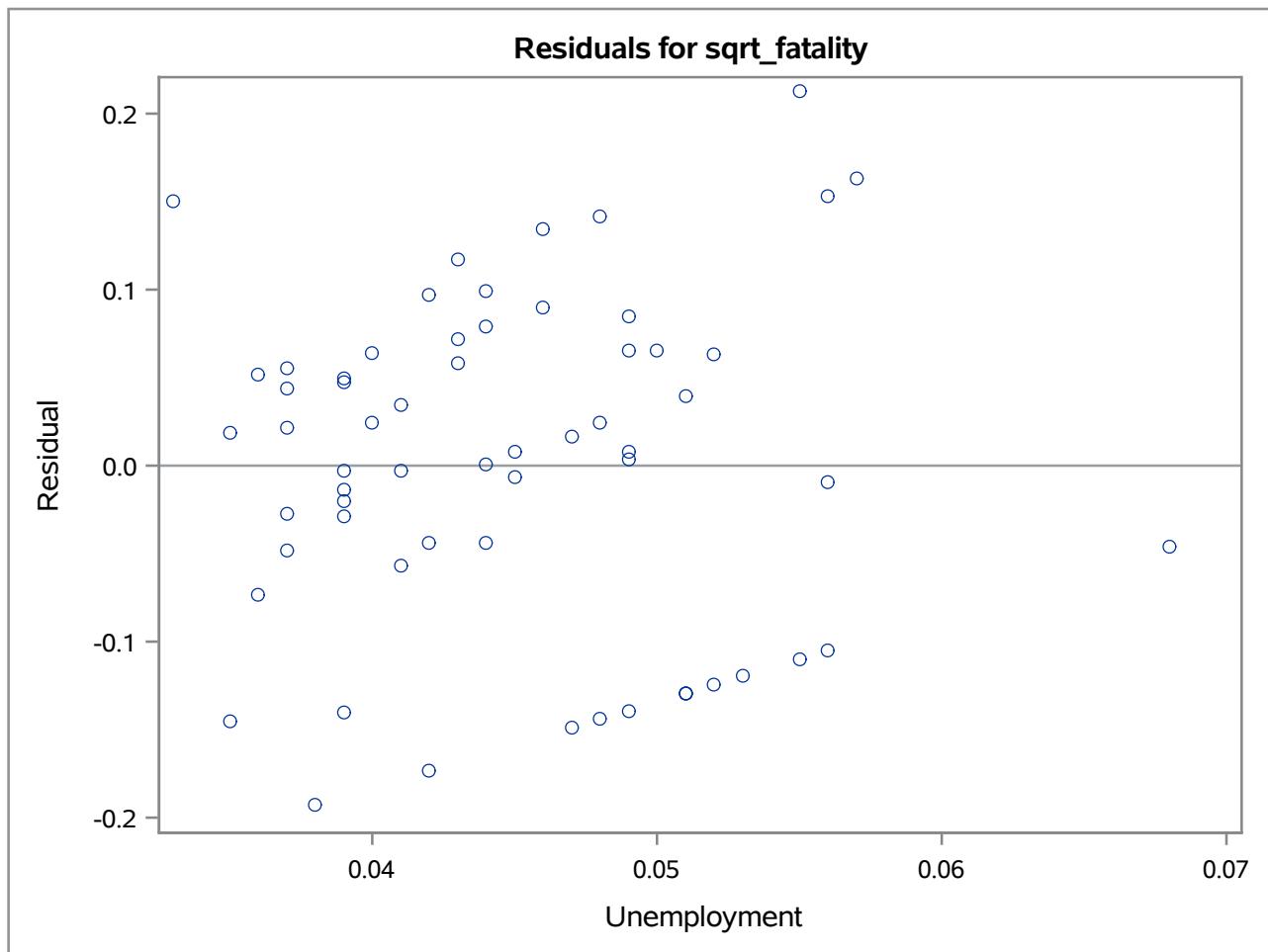
Root MSE	0.09542	R-Square	0.1144
Dependent Mean	0.15931	Adj R-Sq	0.0996
Coeff Var	59.89424		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	0.37888	0.07979	4.75	<.0001
Unemployment	1	-4.88983	1.75636	-2.78	0.0072

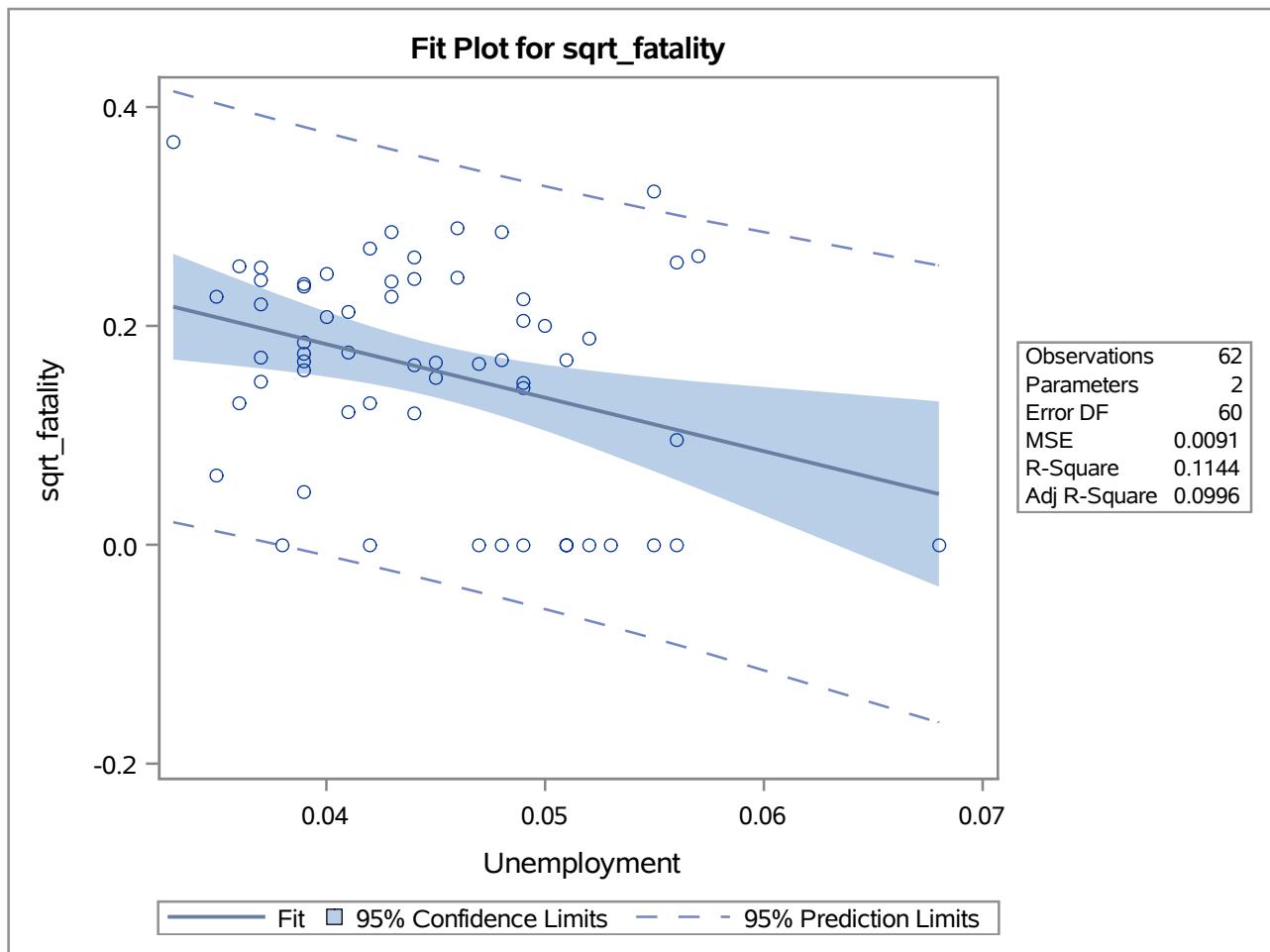
**The REG Procedure**  
**Model: MODEL5**  
**Dependent Variable: sqrt\_fatality**



The REG Procedure  
Model: MODEL5  
Dependent Variable: sqrt\_fatality



The REG Procedure  
Model: MODEL5  
Dependent Variable: sqrt\_fatality



**The REG Procedure**  
**Model: MODEL6**  
**Dependent Variable: sqrt\_fatality**

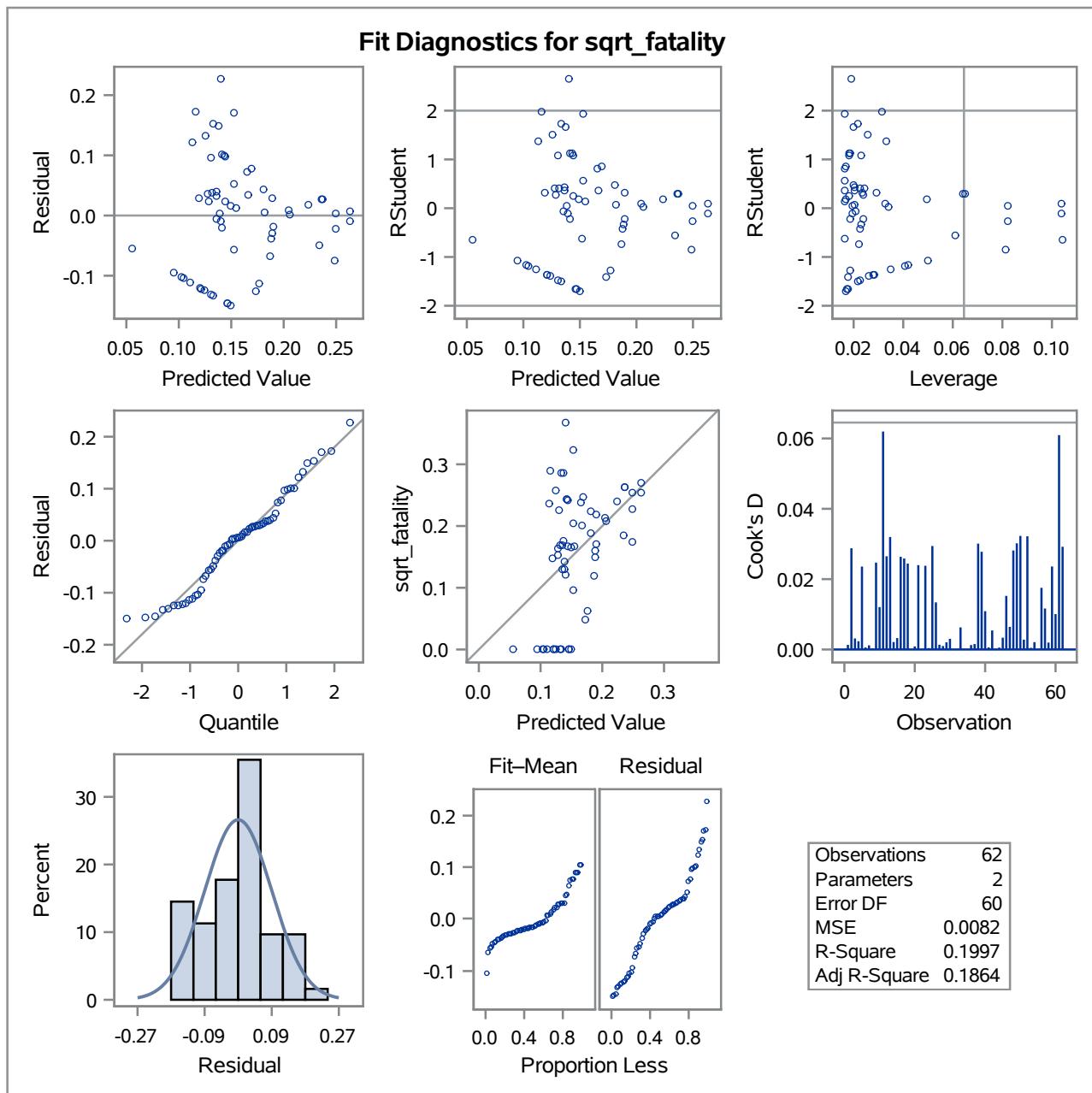
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	0.12319	0.12319	14.97	0.0003
Error	60	0.49365	0.00823		
Corrected Total	61	0.61684			

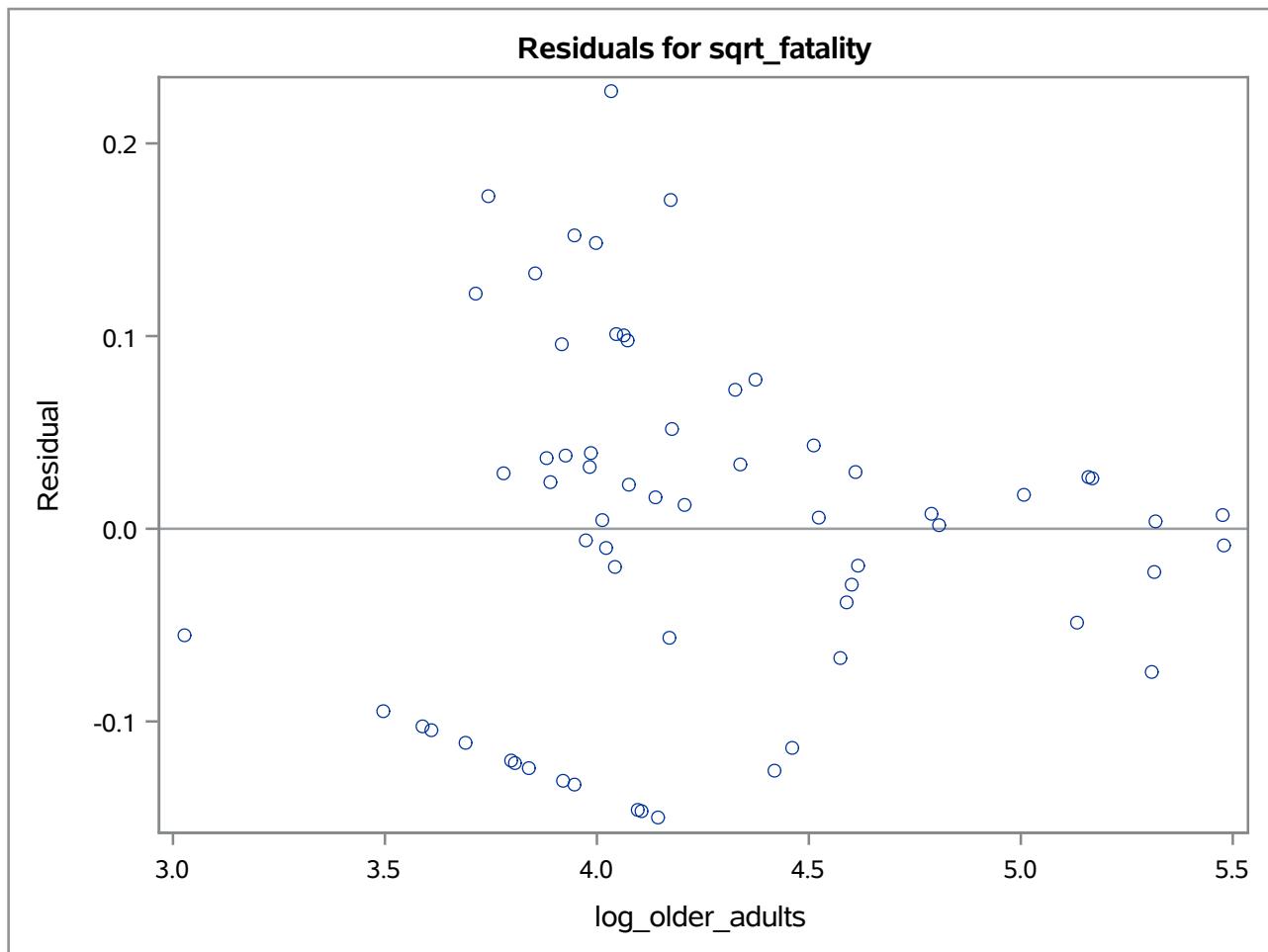
Root MSE	0.09071	R-Square	0.1997
Dependent Mean	0.15931	Adj R-Sq	0.1864
Coeff Var	56.93641		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	-0.20206	0.09410	-2.15	0.0358
log_older_adults	1	0.08493	0.02195	3.87	0.0003

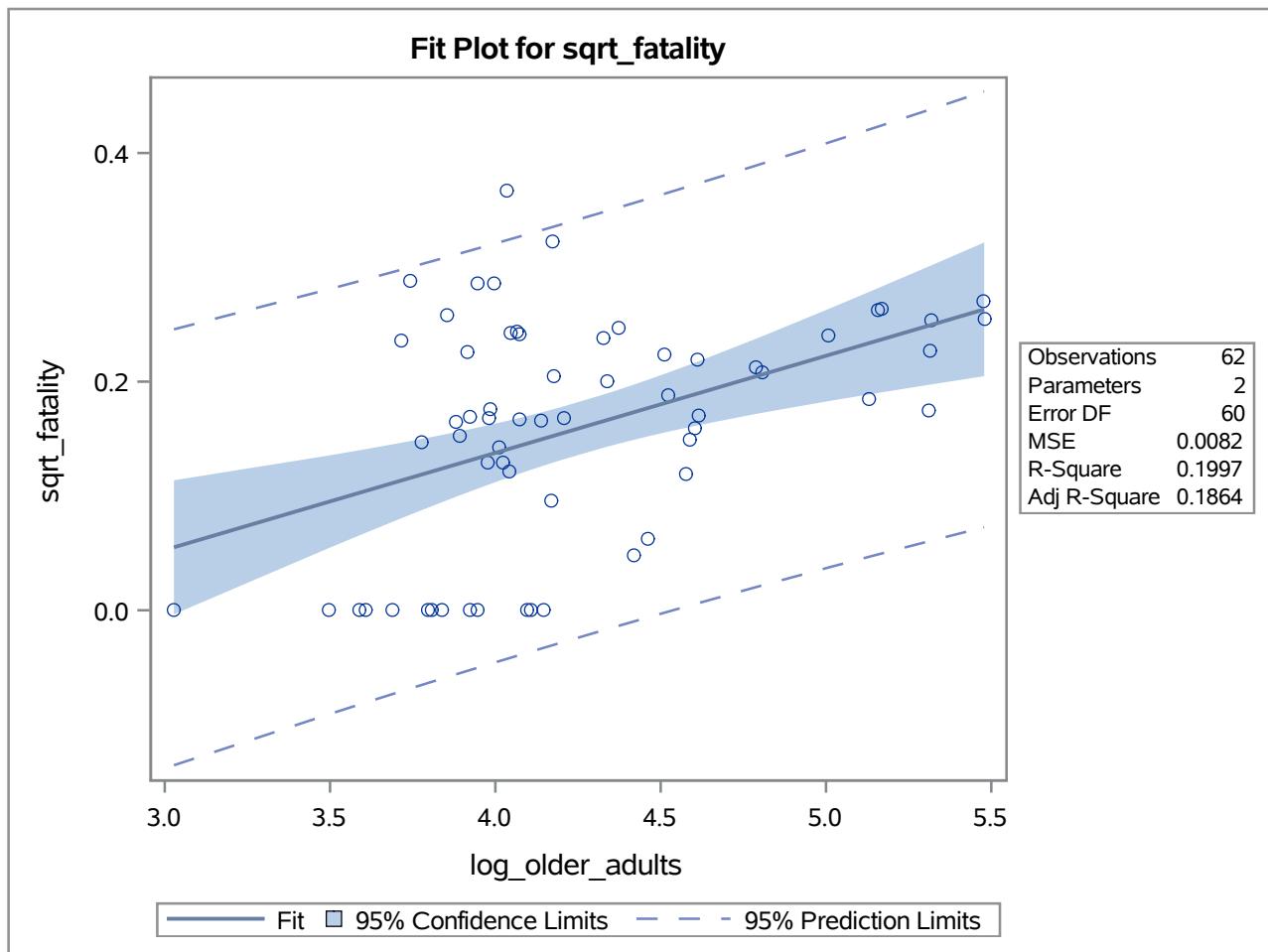
**The REG Procedure**  
**Model: MODEL6**  
**Dependent Variable: sqrt\_fatality**



The REG Procedure  
Model: MODEL6  
Dependent Variable: sqrt\_fatality



The REG Procedure  
Model: MODEL6  
Dependent Variable: sqrt\_fatality



**The REG Procedure**  
**Model: MODEL7**  
**Dependent Variable: sqrt\_fatality**

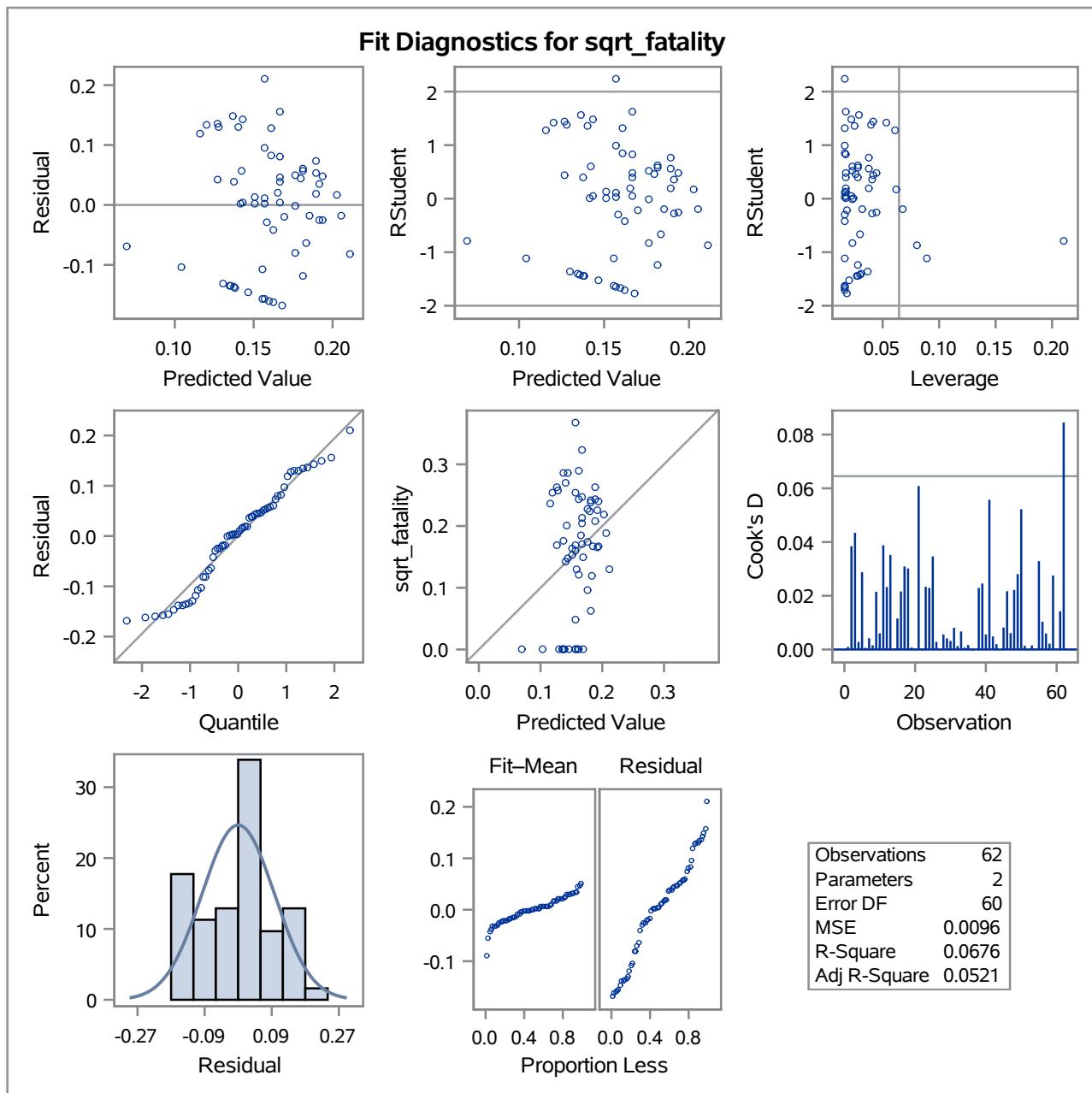
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	0.04173	0.04173	4.35	0.0412
Error	60	0.57511	0.00959		
Corrected Total	61	0.61684			

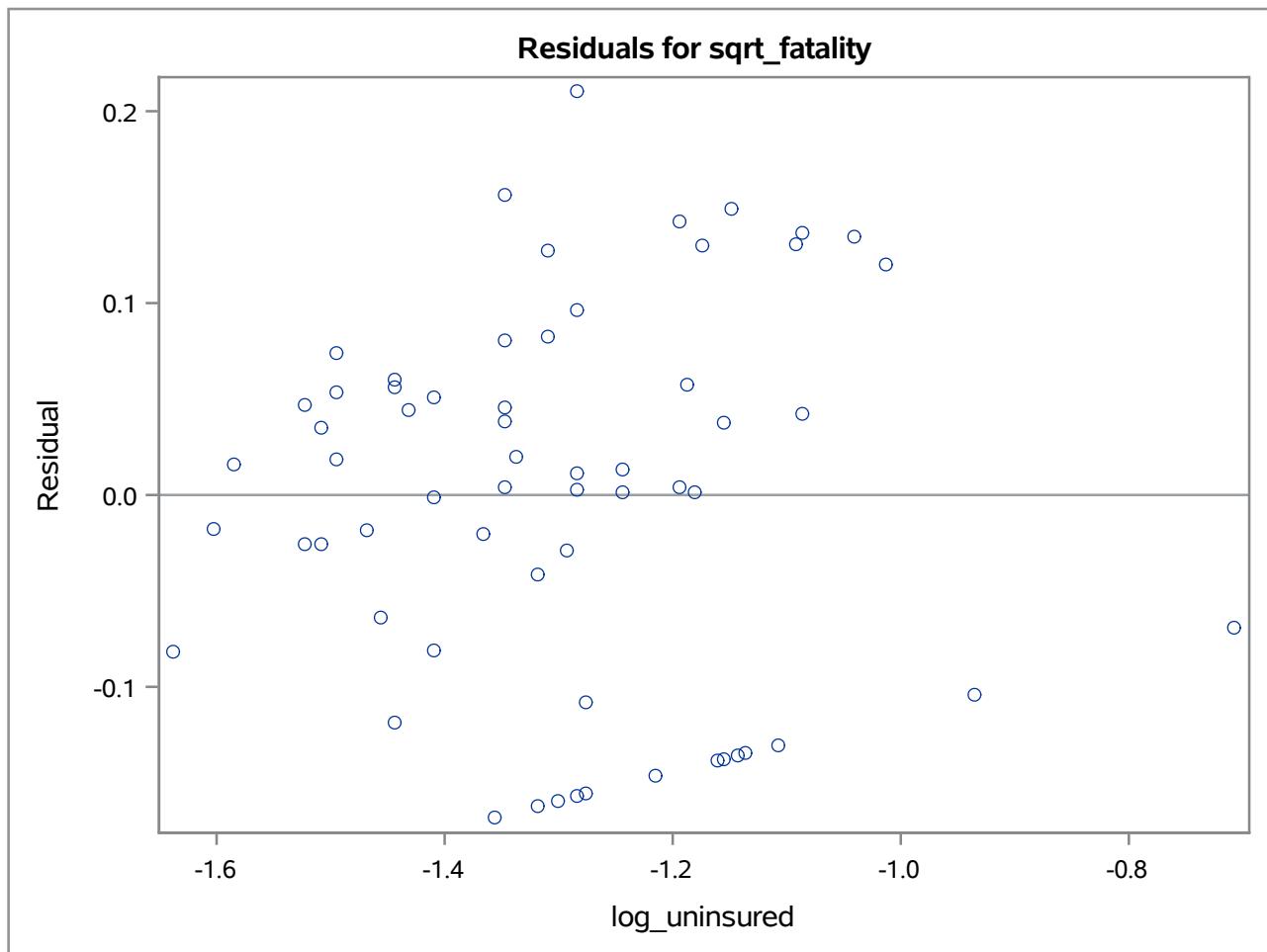
Root MSE	0.09790	R-Square	0.0676
Dependent Mean	0.15931	Adj R-Sq	0.0521
Coeff Var	61.45503		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	-0.03852	0.09563	-0.40	0.6885
log_uninsured	1	-0.15236	0.07302	-2.09	0.0412

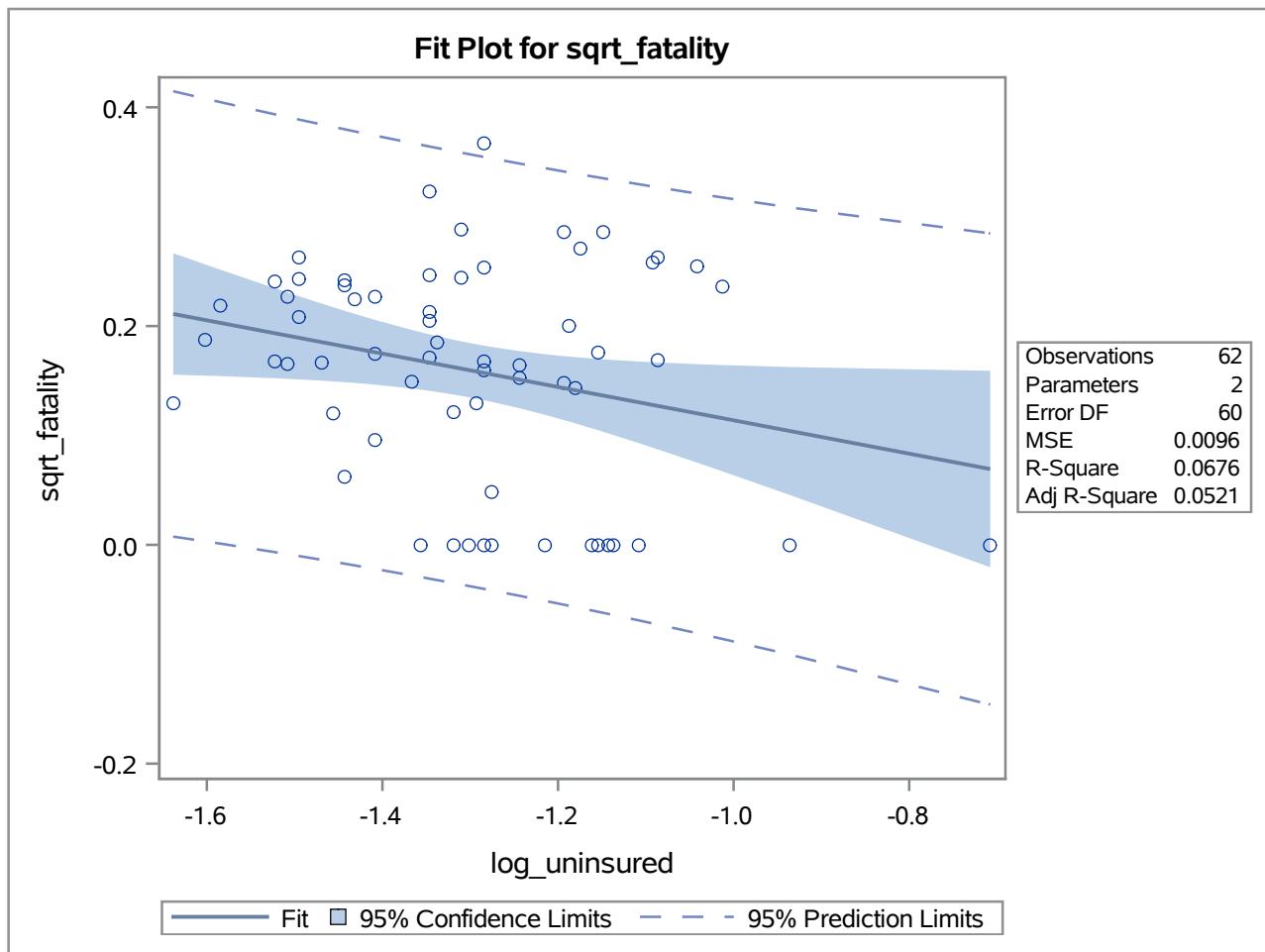
**The REG Procedure**  
**Model: MODEL7**  
**Dependent Variable: sqrt\_fatality**



The REG Procedure  
Model: MODEL7  
Dependent Variable: sqrt\_fatality



The REG Procedure  
Model: MODEL7  
Dependent Variable: sqrt\_fatality



**The REG Procedure**  
**Model: MODEL8**  
**Dependent Variable: sqrt\_fatality**

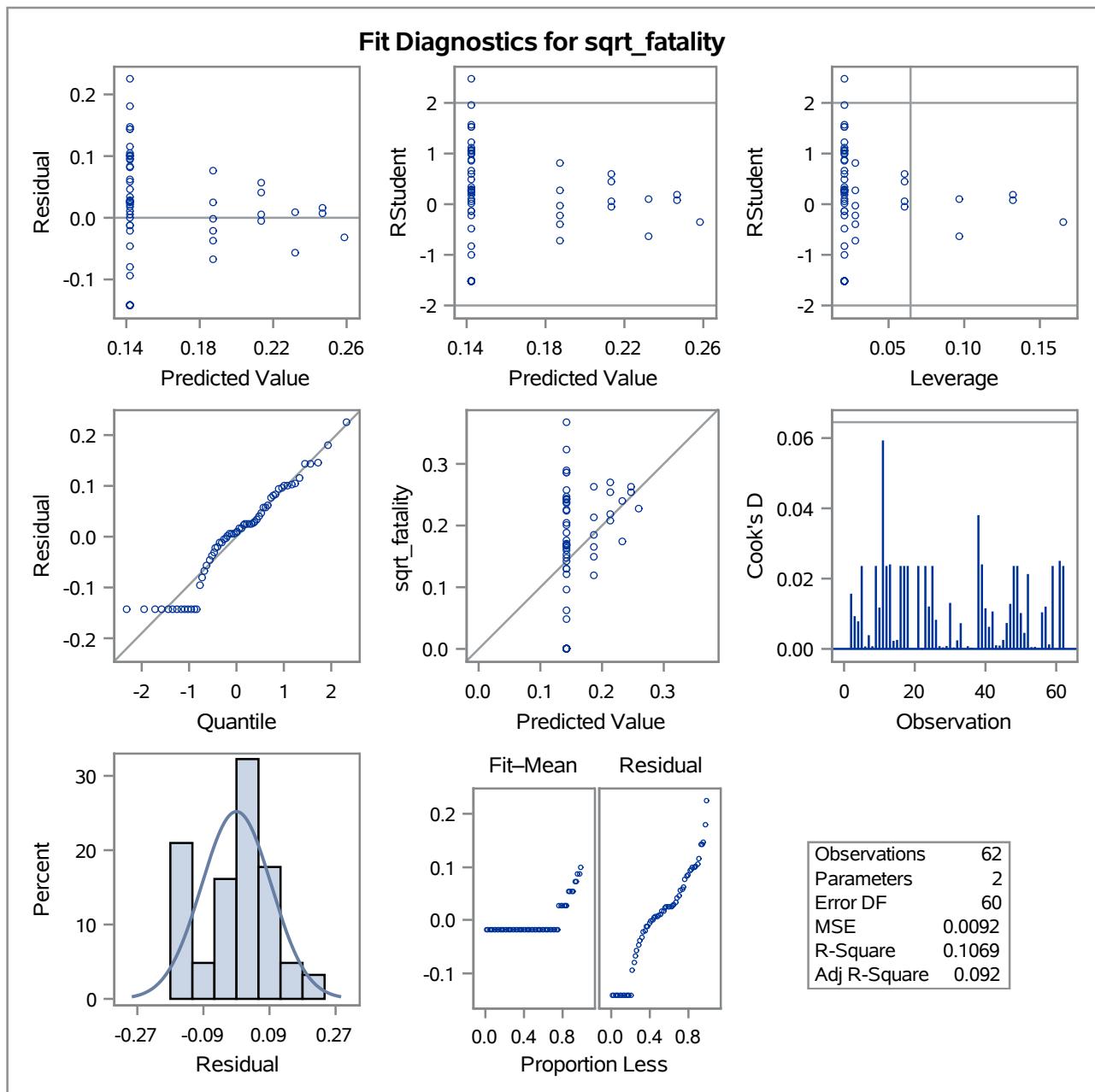
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	0.06595	0.06595	7.18	0.0095
Error	60	0.55089	0.00918		
Corrected Total	61	0.61684			

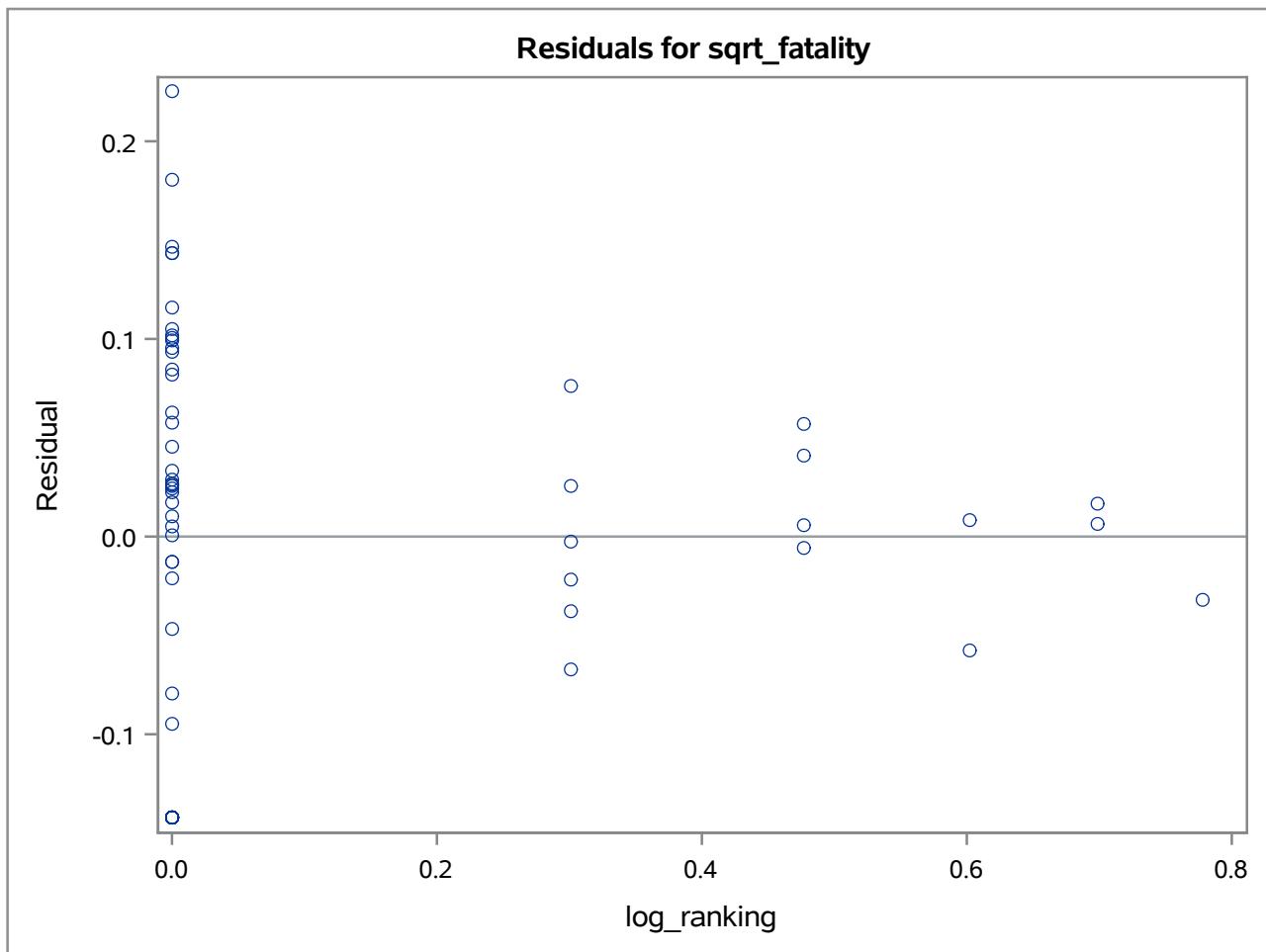
Root MSE	0.09582	R-Square	0.1069
Dependent Mean	0.15931	Adj R-Sq	0.0920
Coeff Var	60.14692		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	0.14220	0.01374	10.35	<.0001
log_ranking	1	0.14952	0.05579	2.68	0.0095

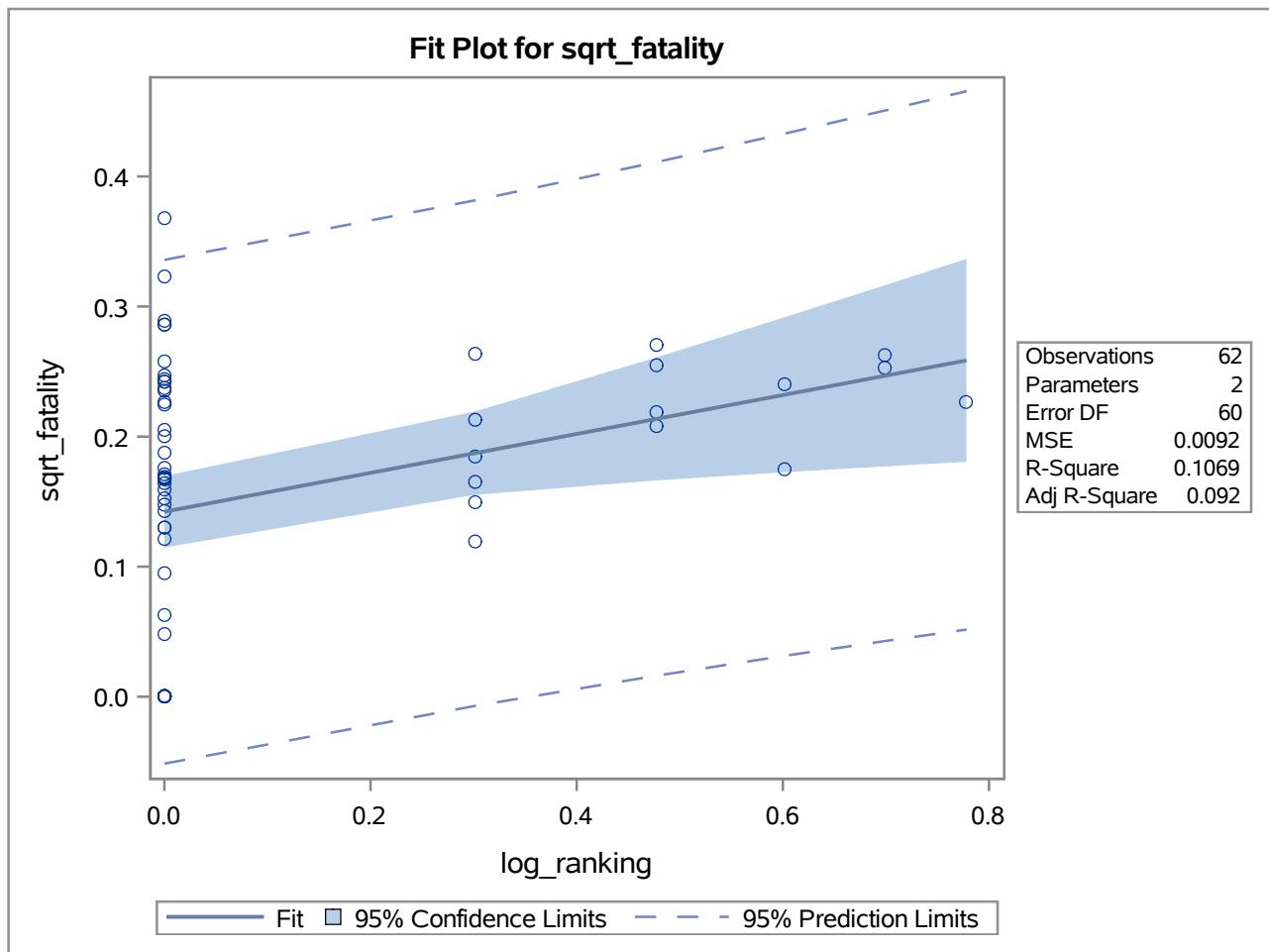
**The REG Procedure**  
**Model: MODEL8**  
**Dependent Variable: sqrt\_fatality**



The REG Procedure  
Model: MODEL8  
Dependent Variable: sqrt\_fatality



The REG Procedure  
Model: MODEL8  
Dependent Variable: sqrt\_fatality



**The REG Procedure**  
**Model: MODEL9**  
**Dependent Variable: sqrt\_fatality**

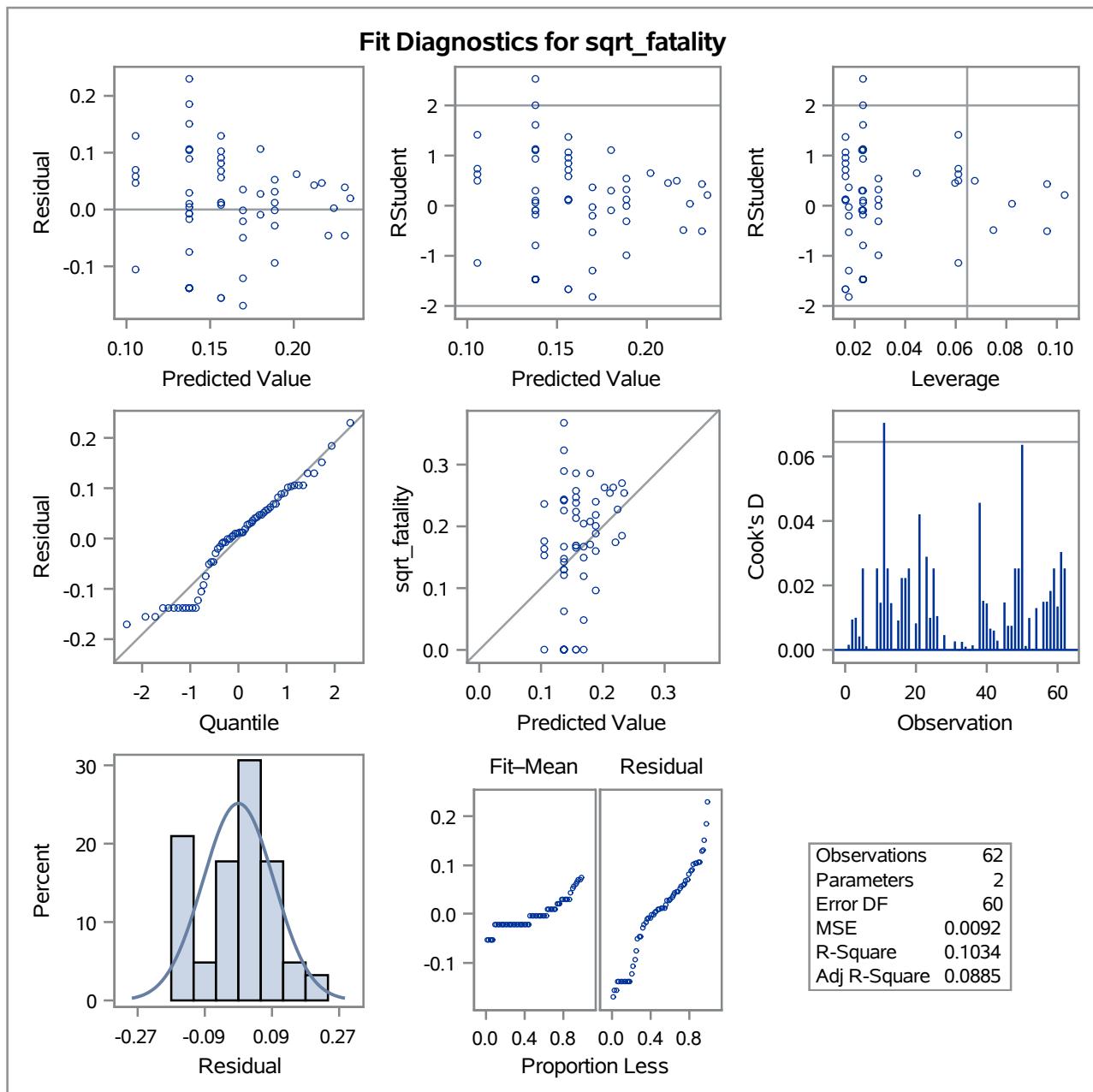
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	0.06381	0.06381	6.92	0.0108
Error	60	0.55303	0.00922		
Corrected Total	61	0.61684			

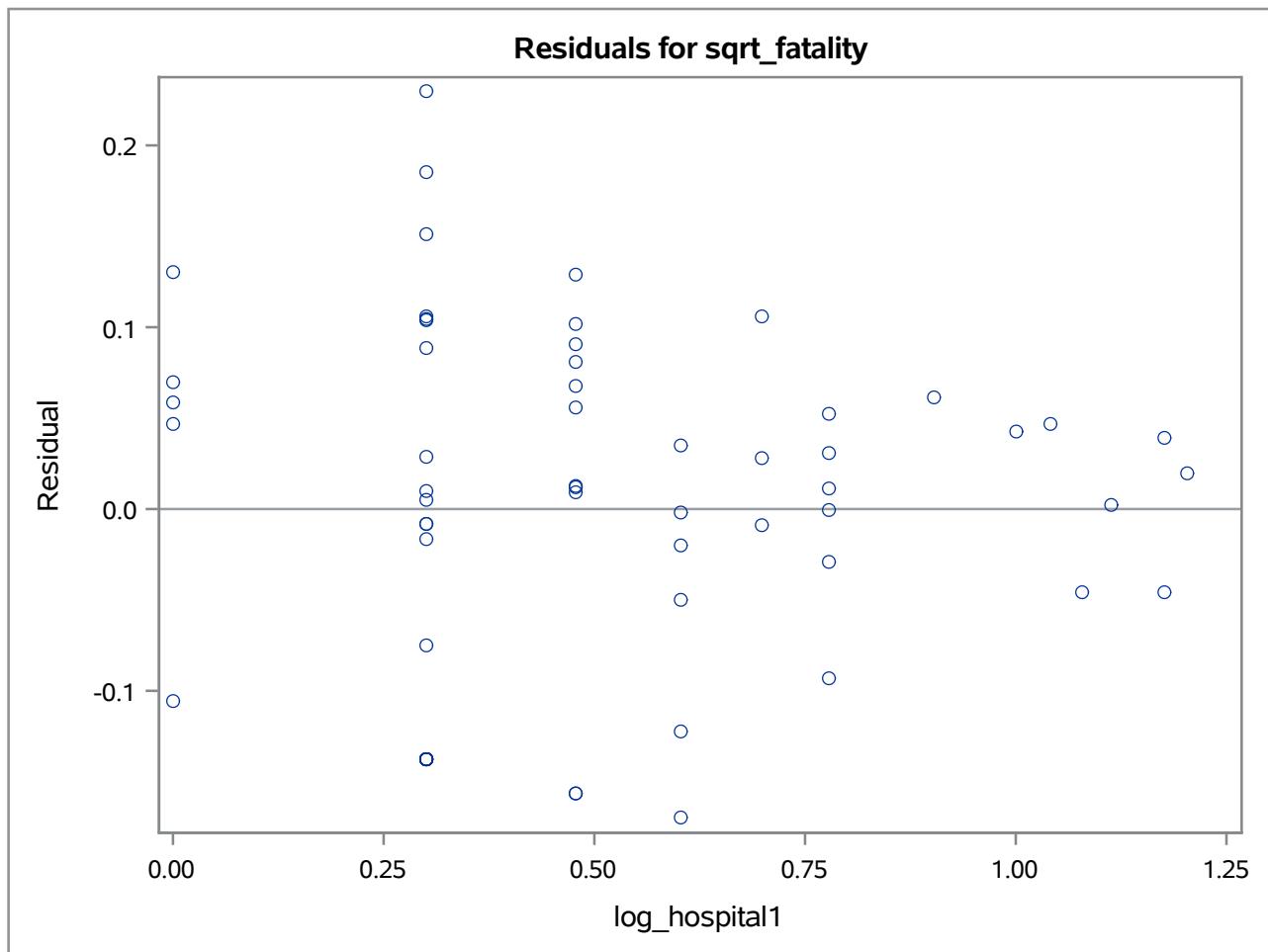
Root MSE	0.09601	R-Square	0.1034
Dependent Mean	0.15931	Adj R-Sq	0.0885
Coeff Var	60.26371		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	0.10570	0.02374	4.45	<.0001
log_hospital1	1	0.10638	0.04043	2.63	0.0108

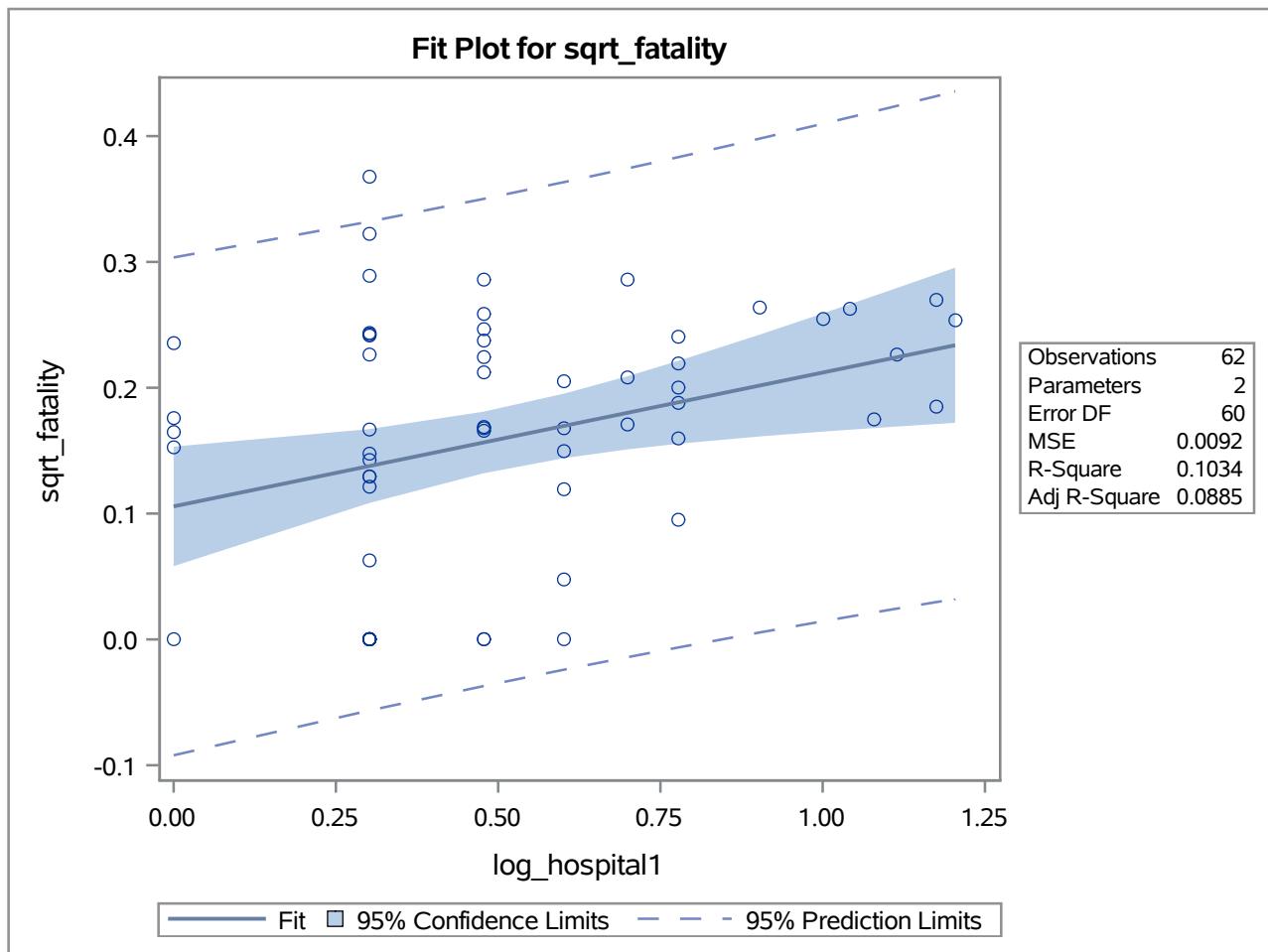
**The REG Procedure**  
**Model: MODEL9**  
**Dependent Variable: sqrt\_fatality**



The REG Procedure  
Model: MODEL9  
Dependent Variable: sqrt\_fatality



The REG Procedure  
Model: MODEL9  
Dependent Variable: sqrt\_fatality



**The REG Procedure**  
**Model: MODEL10**  
**Dependent Variable: sqrt\_fatality**

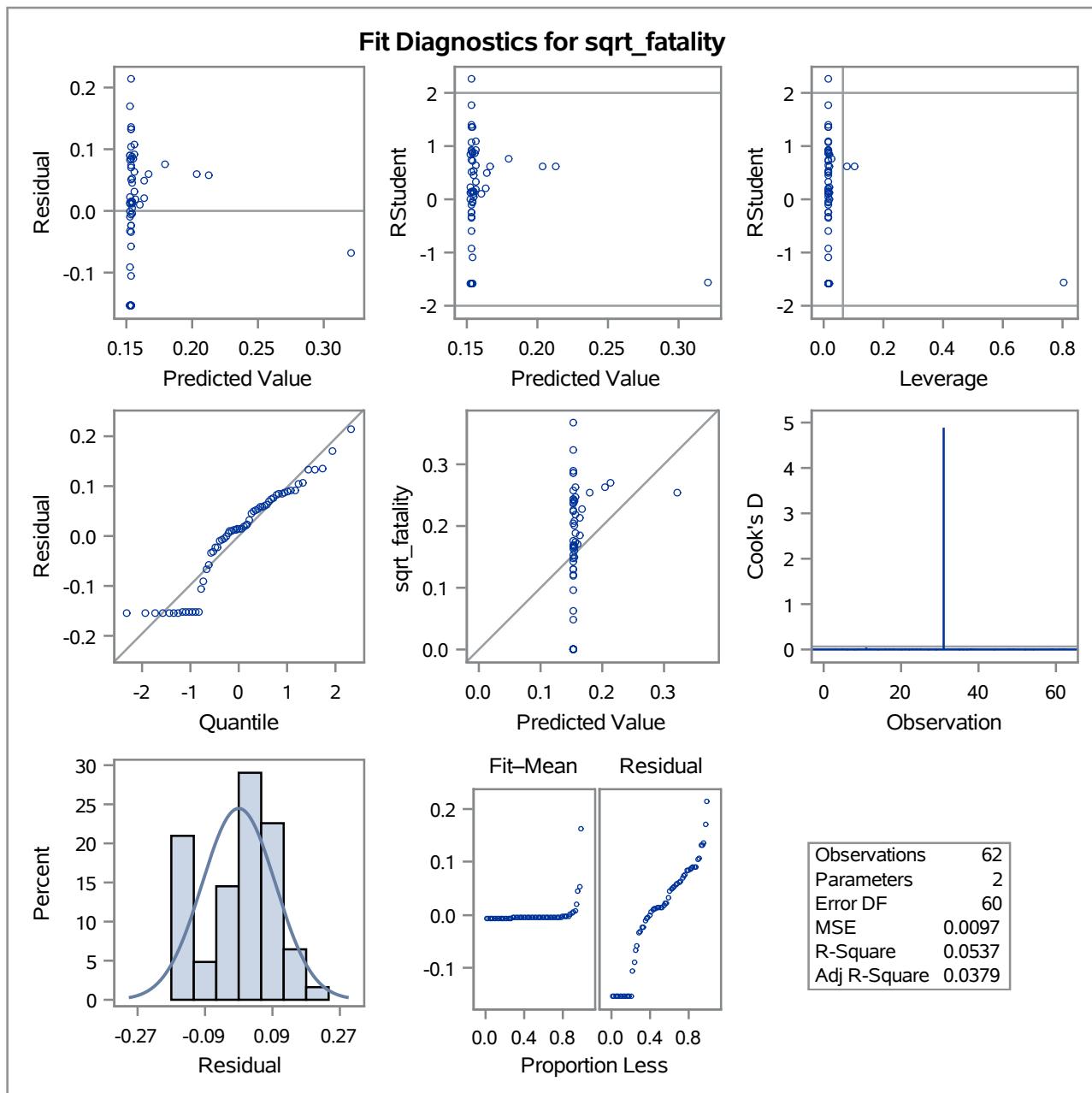
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	0.03311	0.03311	3.40	0.0700
Error	60	0.58373	0.00973		
Corrected Total	61	0.61684			

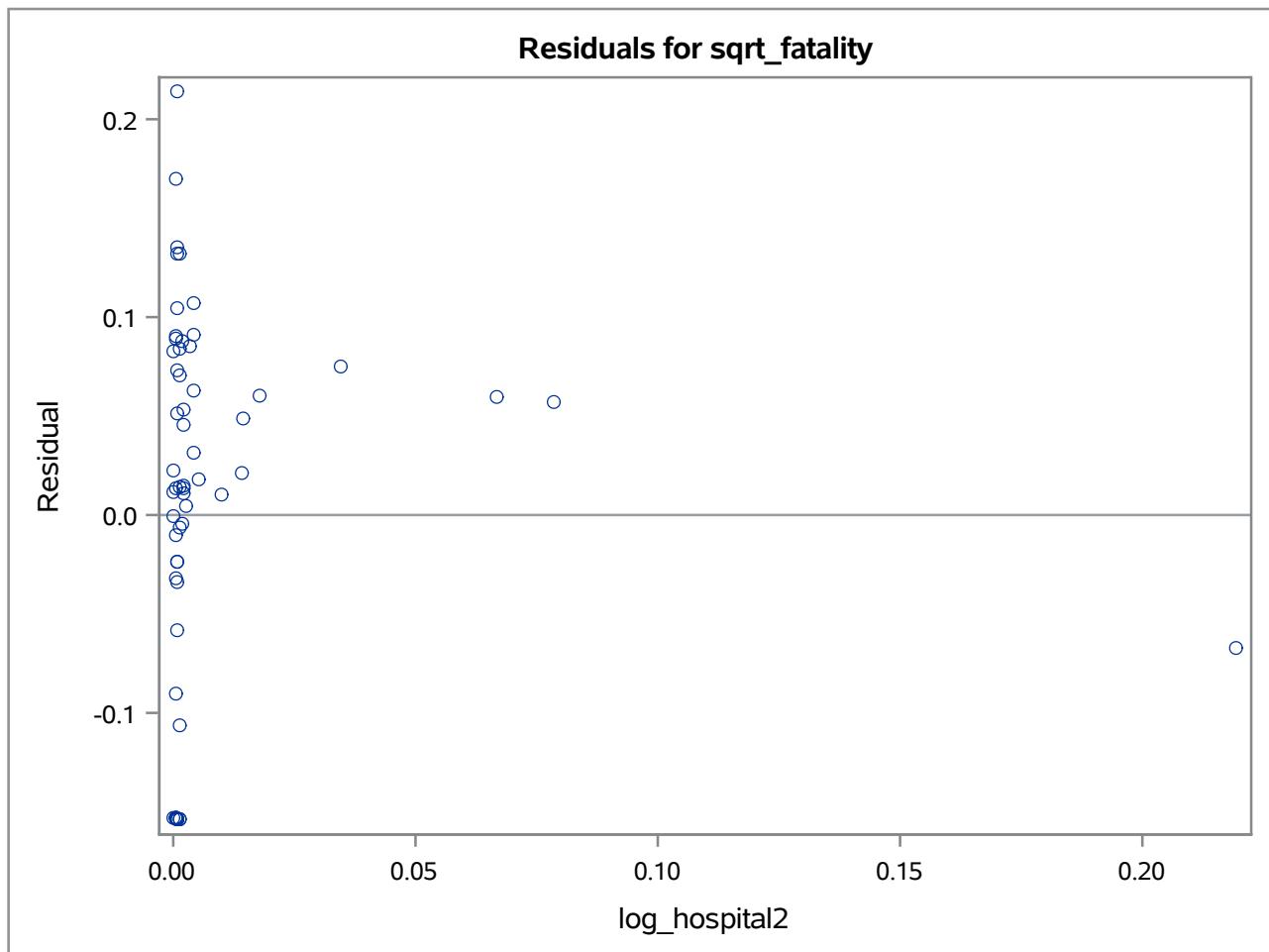
Root MSE	0.09863	R-Square	0.0537
Dependent Mean	0.15931	Adj R-Sq	0.0379
Coeff Var	61.91369		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	0.15280	0.01301	11.74	<.0001
log_hospital2	1	0.76601	0.41522	1.84	0.0700

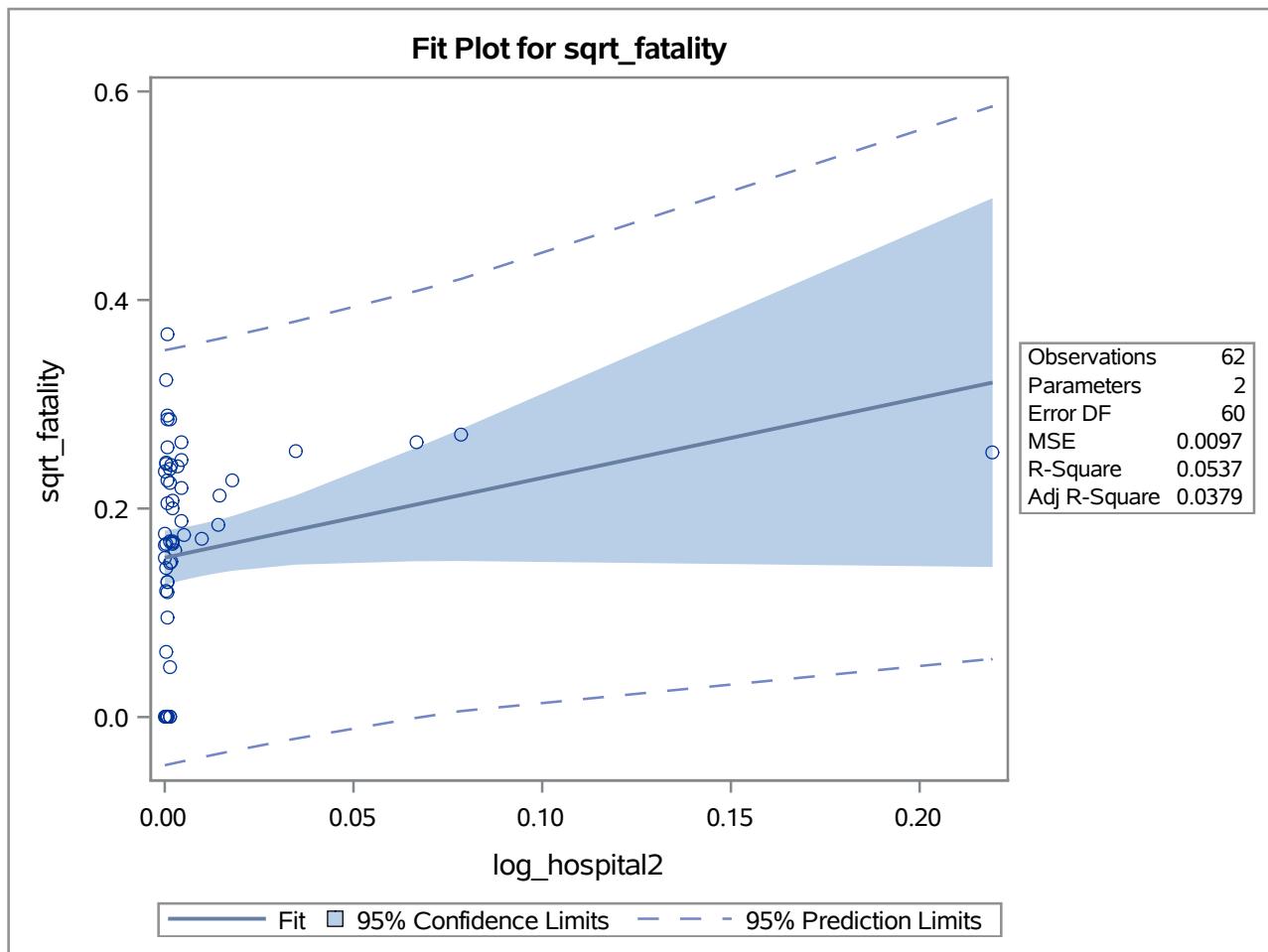
**The REG Procedure**  
**Model: MODEL10**  
**Dependent Variable: sqrt\_fatality**



The REG Procedure  
Model: MODEL10  
Dependent Variable: sqrt\_fatality



The REG Procedure  
Model: MODEL10  
Dependent Variable: sqrt\_fatality



**The REG Procedure**  
**Model: MODEL11**  
**Dependent Variable: sqrt\_fatality**

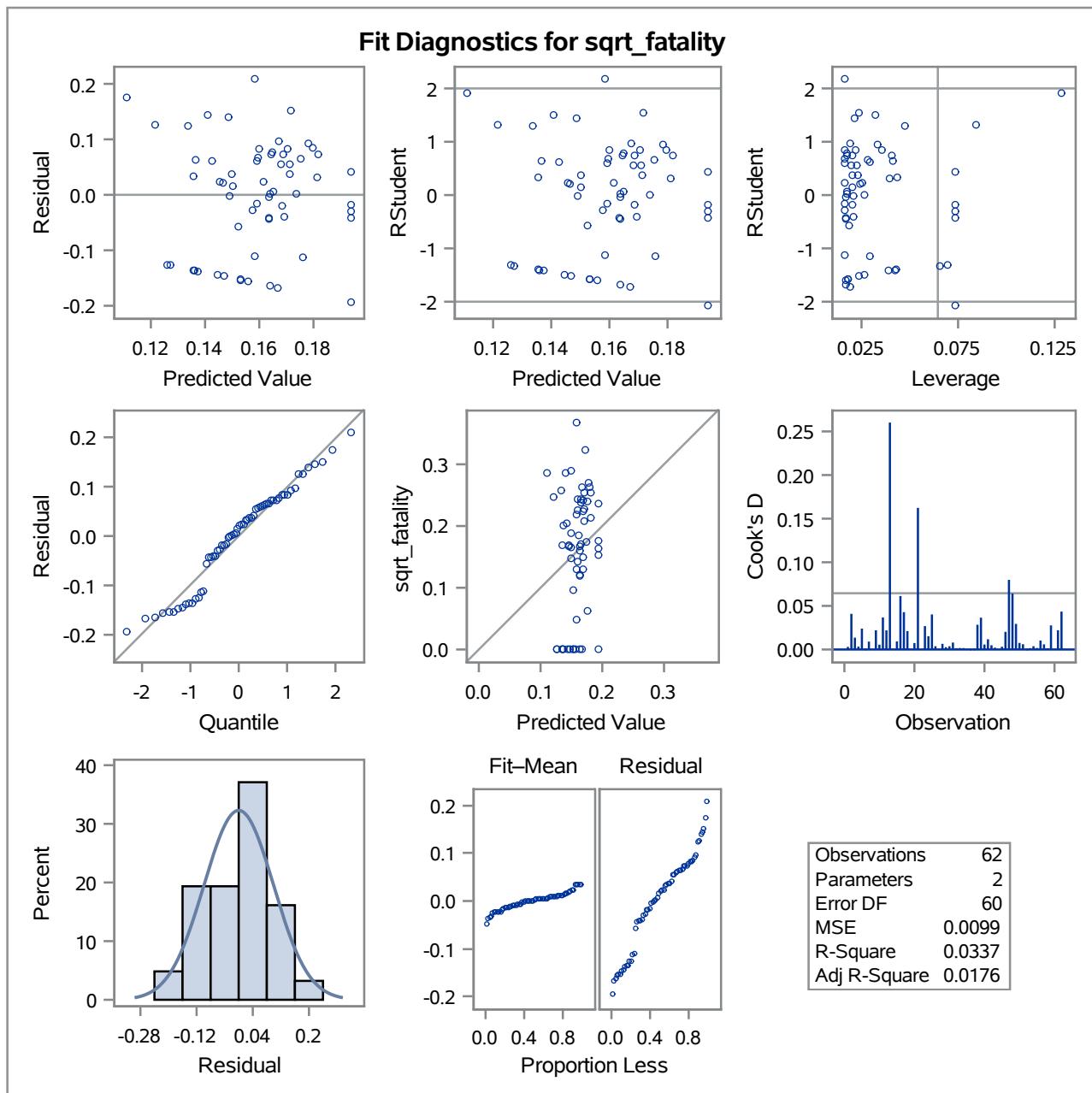
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	0.02080	0.02080	2.09	0.1531
Error	60	0.59605	0.00993		
Corrected Total	61	0.61684			

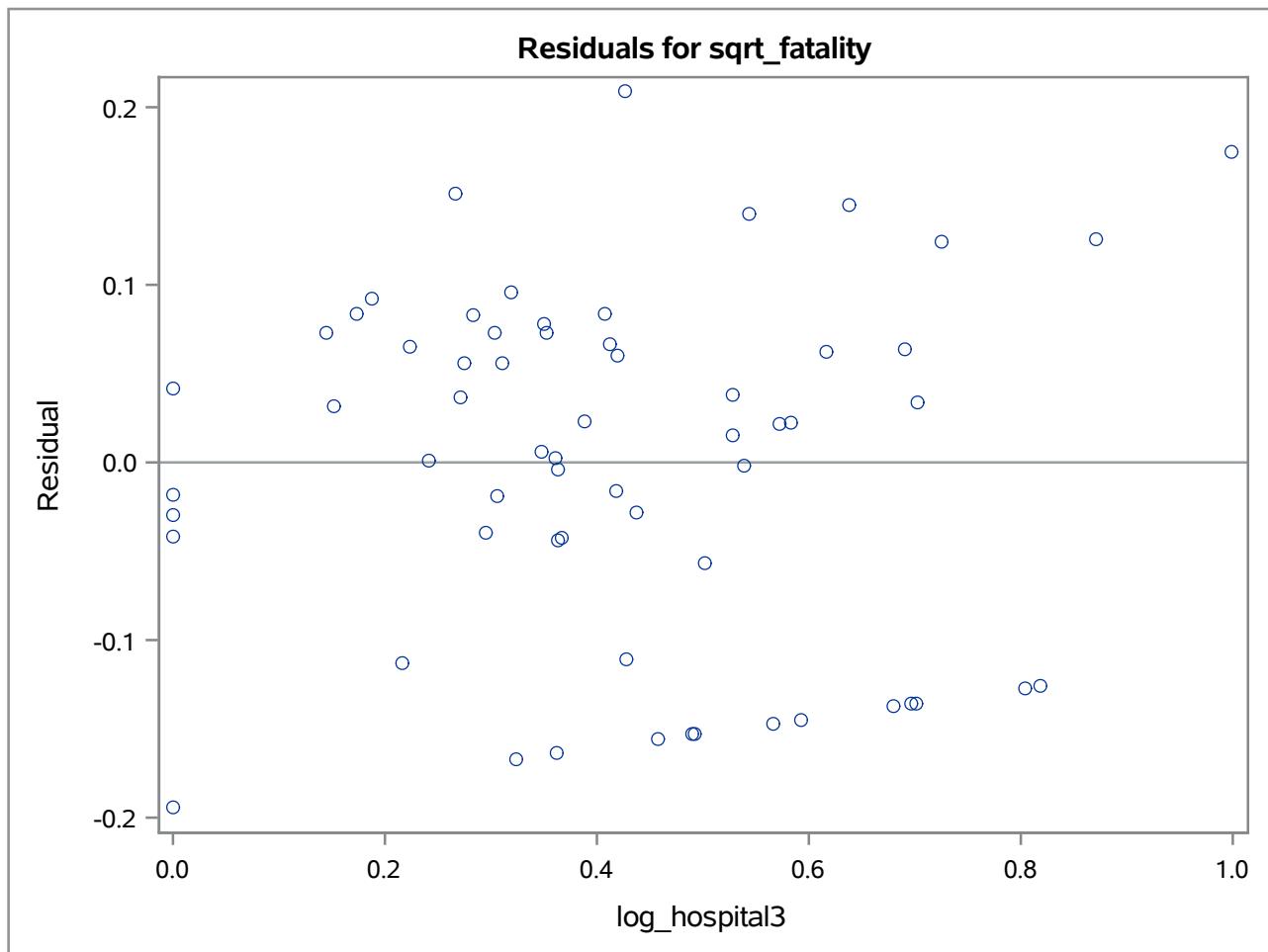
Root MSE	0.09967	R-Square	0.0337
Dependent Mean	0.15931	Adj R-Sq	0.0176
Coeff Var	62.56342		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	0.19389	0.02705	7.17	<.0001
log_hospital3	1	-0.08299	0.05736	-1.45	0.1531

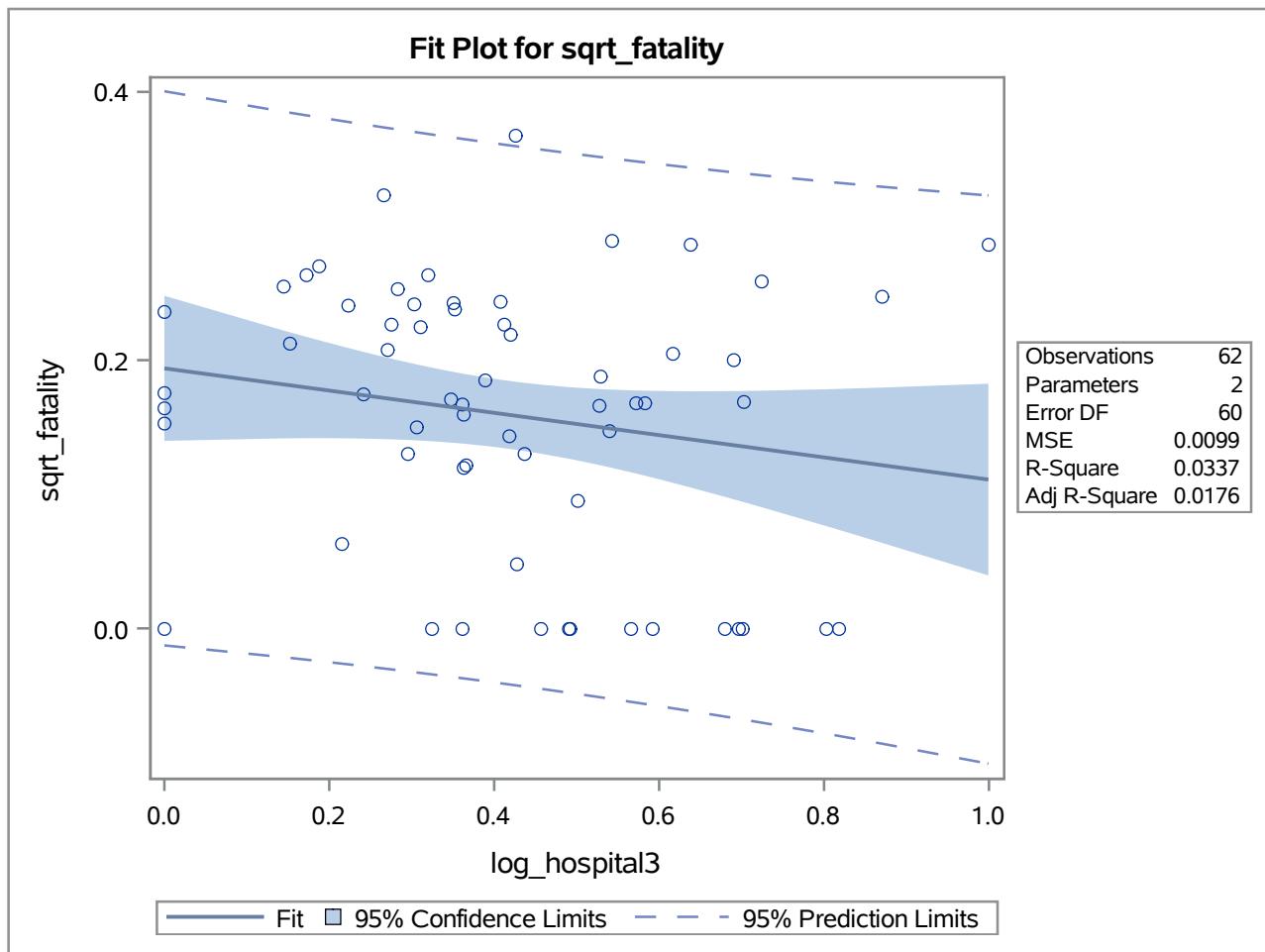
**The REG Procedure**  
**Model: MODEL11**  
**Dependent Variable: sqrt\_fatality**



The REG Procedure  
Model: MODEL11  
Dependent Variable: sqrt\_fatality



The REG Procedure  
Model: MODEL11  
Dependent Variable: sqrt\_fatality



**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: sqrt\_fatality**

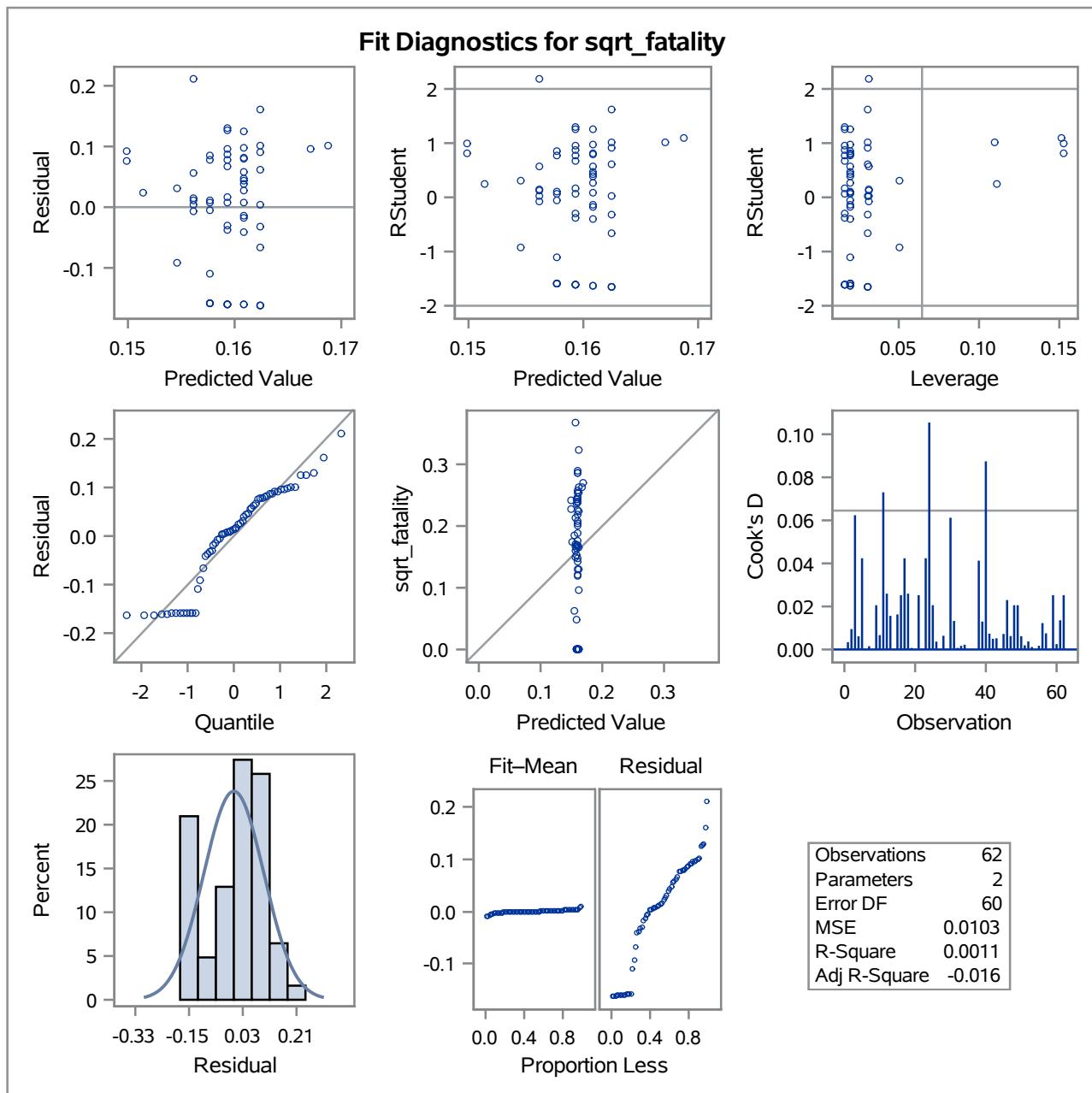
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	0.00065507	0.00065507	0.06	0.8015
Error	60	0.61619	0.01027		
Corrected Total	61	0.61684			

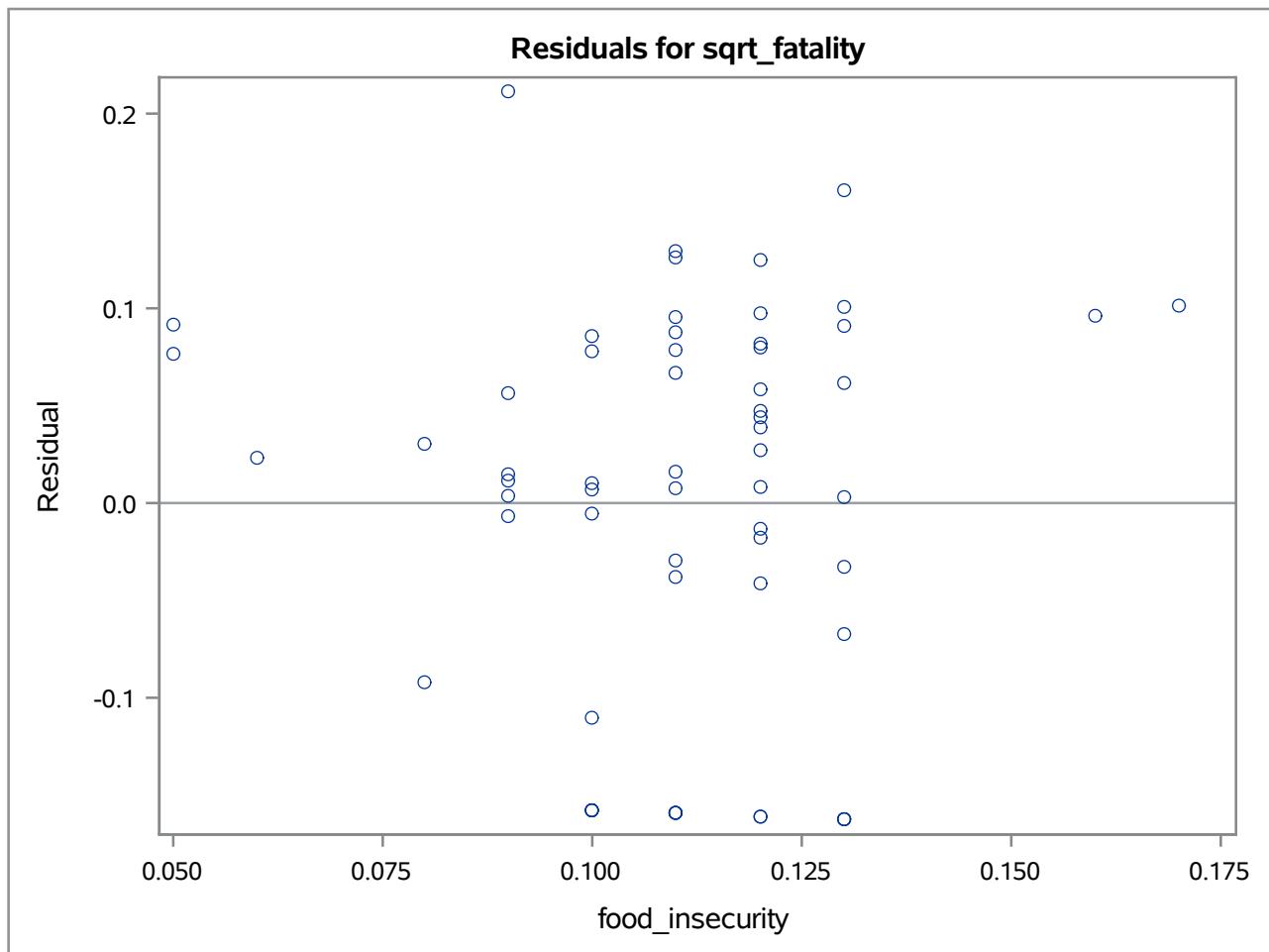
Root MSE	0.10134	R-Square	0.0011
Dependent Mean	0.15931	Adj R-Sq	-0.0156
Coeff Var	63.61166		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	0.14199	0.06978	2.03	0.0463
food_insecurity	1	0.15723	0.62255	0.25	0.8015

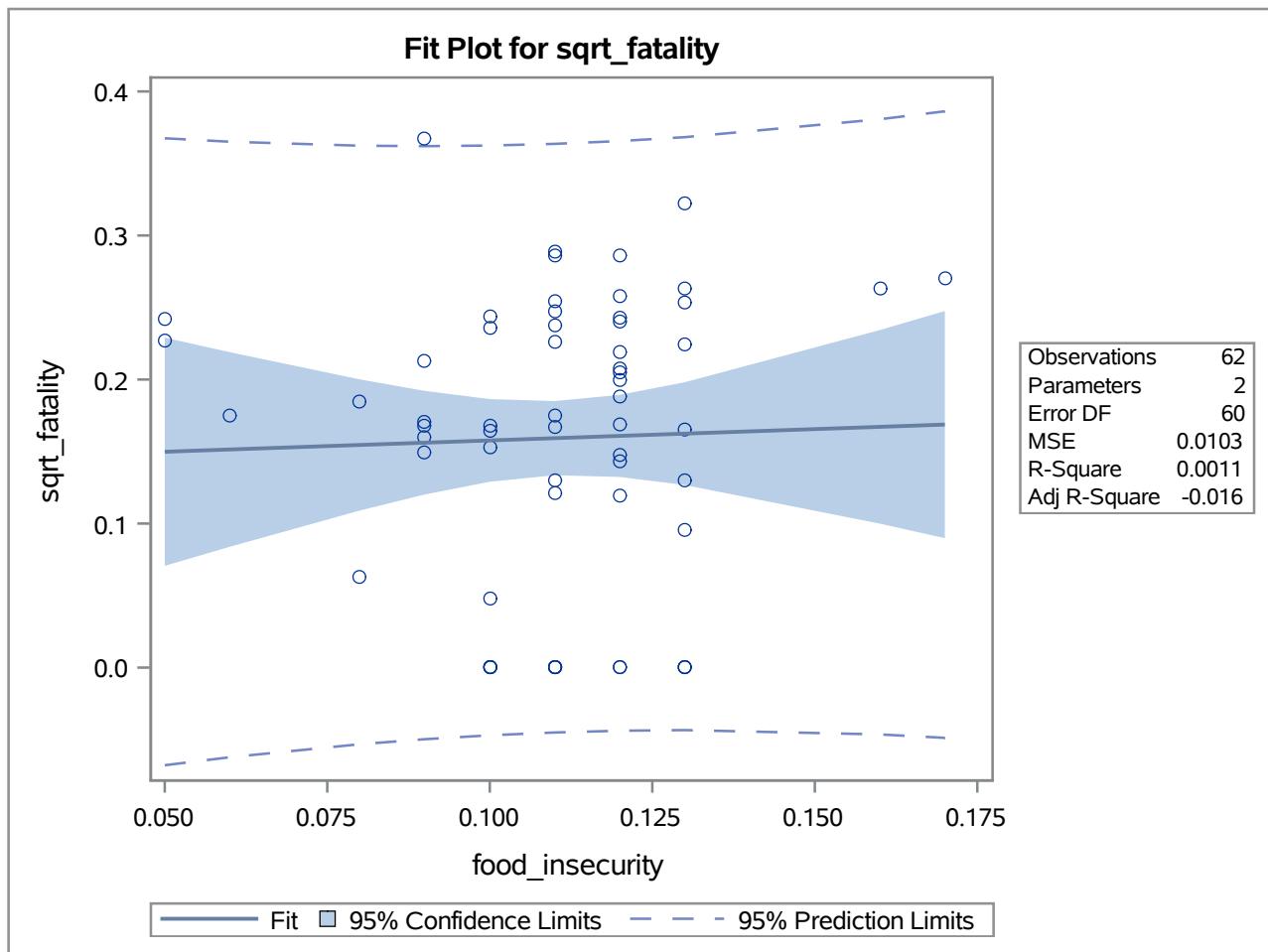
**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: sqrt\_fatality**



The REG Procedure  
Model: MODEL1  
Dependent Variable: sqrt\_fatality



The REG Procedure  
Model: MODEL1  
Dependent Variable: sqrt\_fatality



**The REG Procedure**  
**Model: MODEL2**  
**Dependent Variable: sqrt\_fatality**

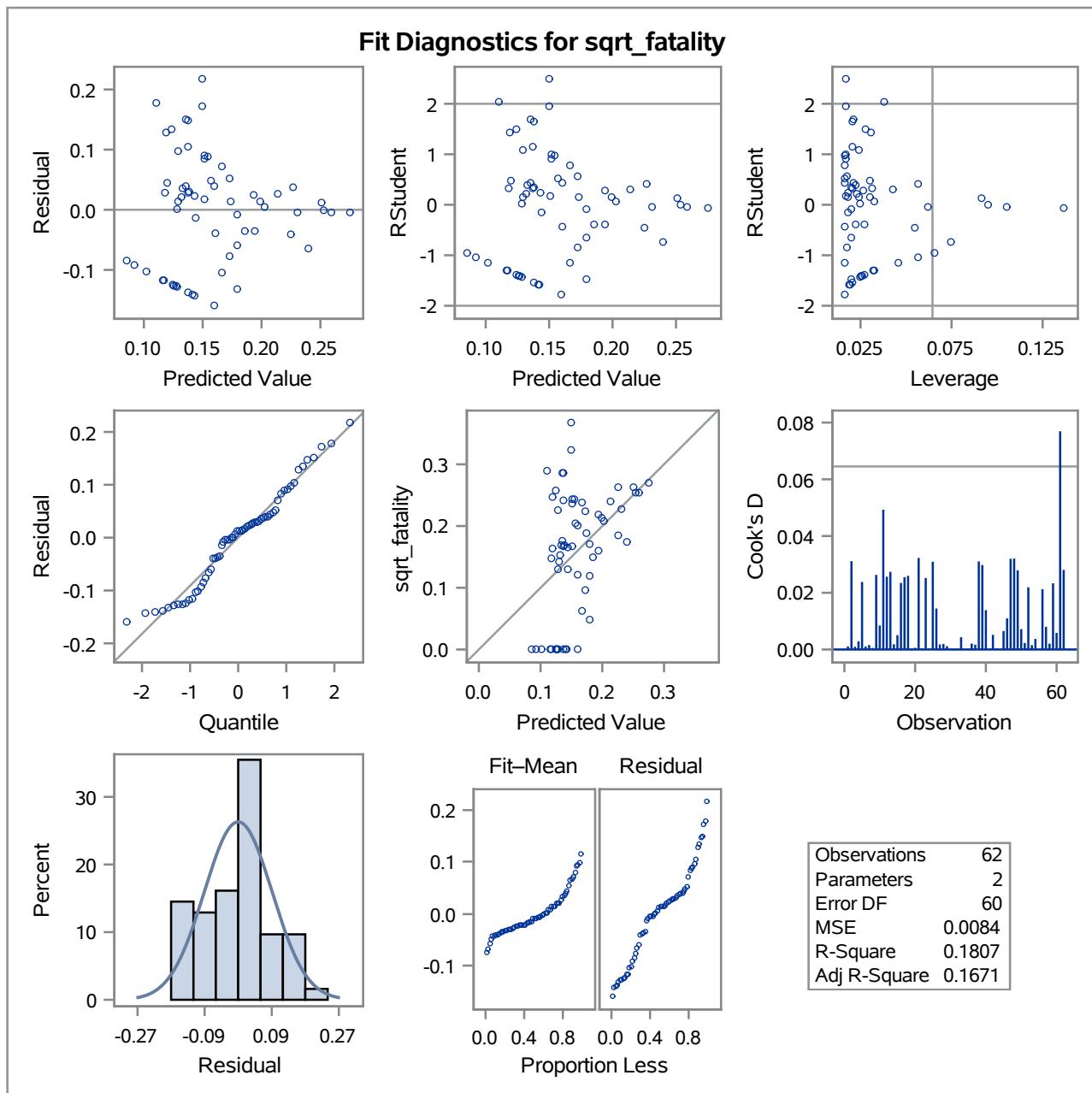
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	0.11147	0.11147	13.23	0.0006
Error	60	0.50537	0.00842		
Corrected Total	61	0.61684			

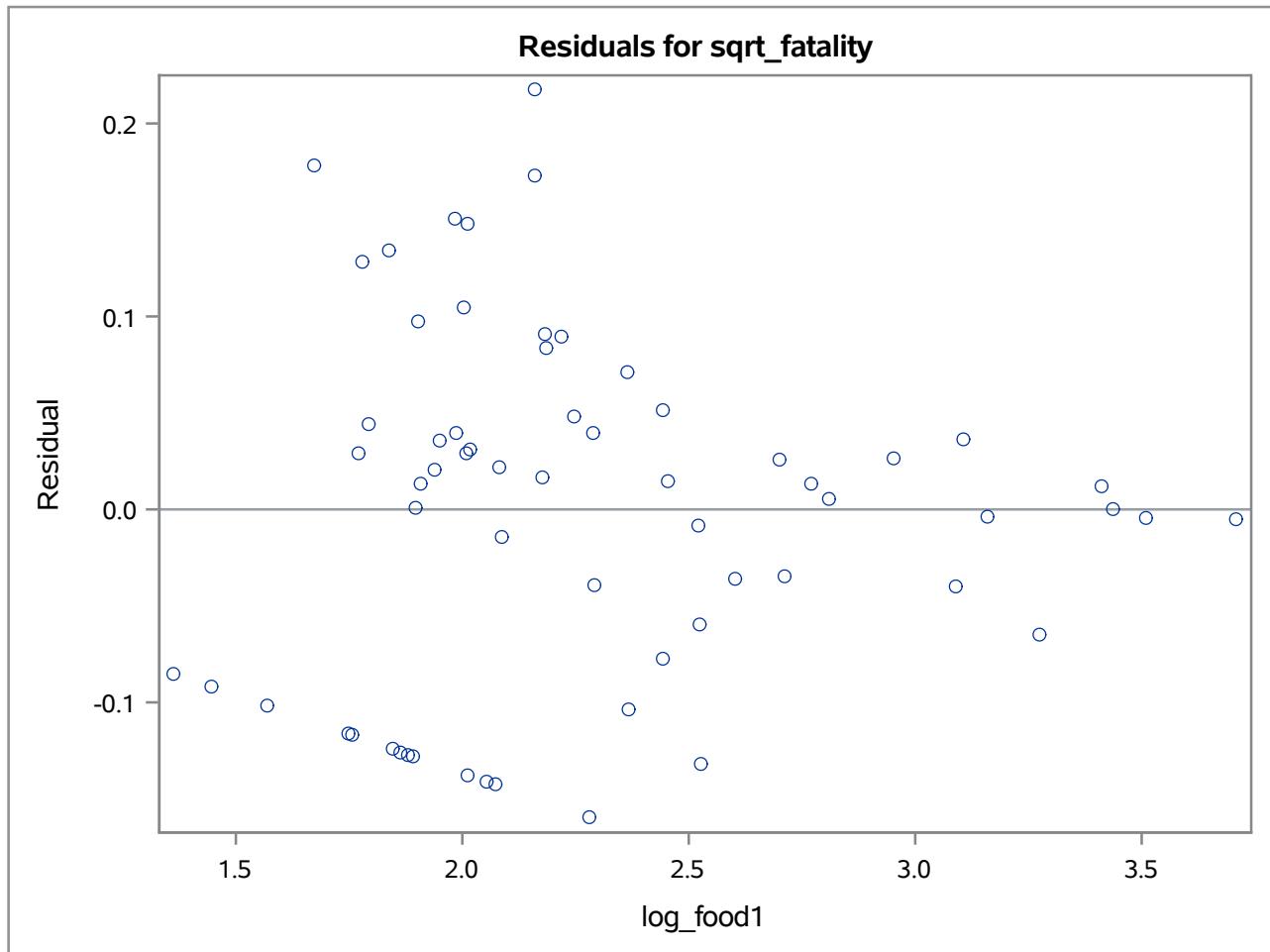
Root MSE	0.09178	R-Square	0.1807
Dependent Mean	0.15931	Adj R-Sq	0.1671
Coeff Var	57.60825		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	-0.02515	0.05203	-0.48	0.6305
log_food1	1	0.08099	0.02226	3.64	0.0006

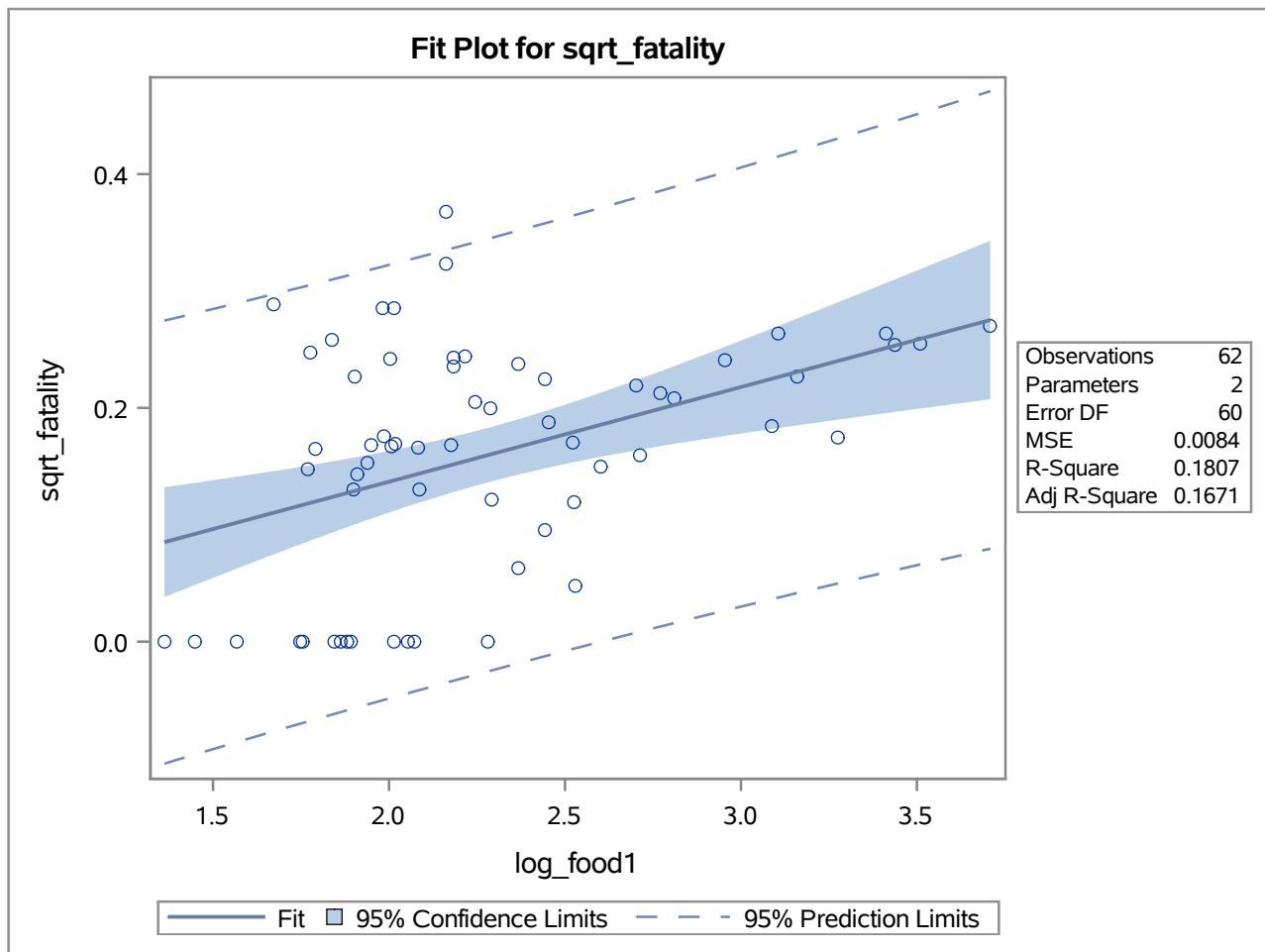
**The REG Procedure**  
**Model: MODEL2**  
**Dependent Variable: sqrt\_fatality**



The REG Procedure  
Model: MODEL2  
Dependent Variable: sqrt\_fatality



The REG Procedure  
Model: MODEL2  
Dependent Variable: sqrt\_fatality



**The REG Procedure**  
**Model: MODEL3**  
**Dependent Variable: sqrt\_fatality**

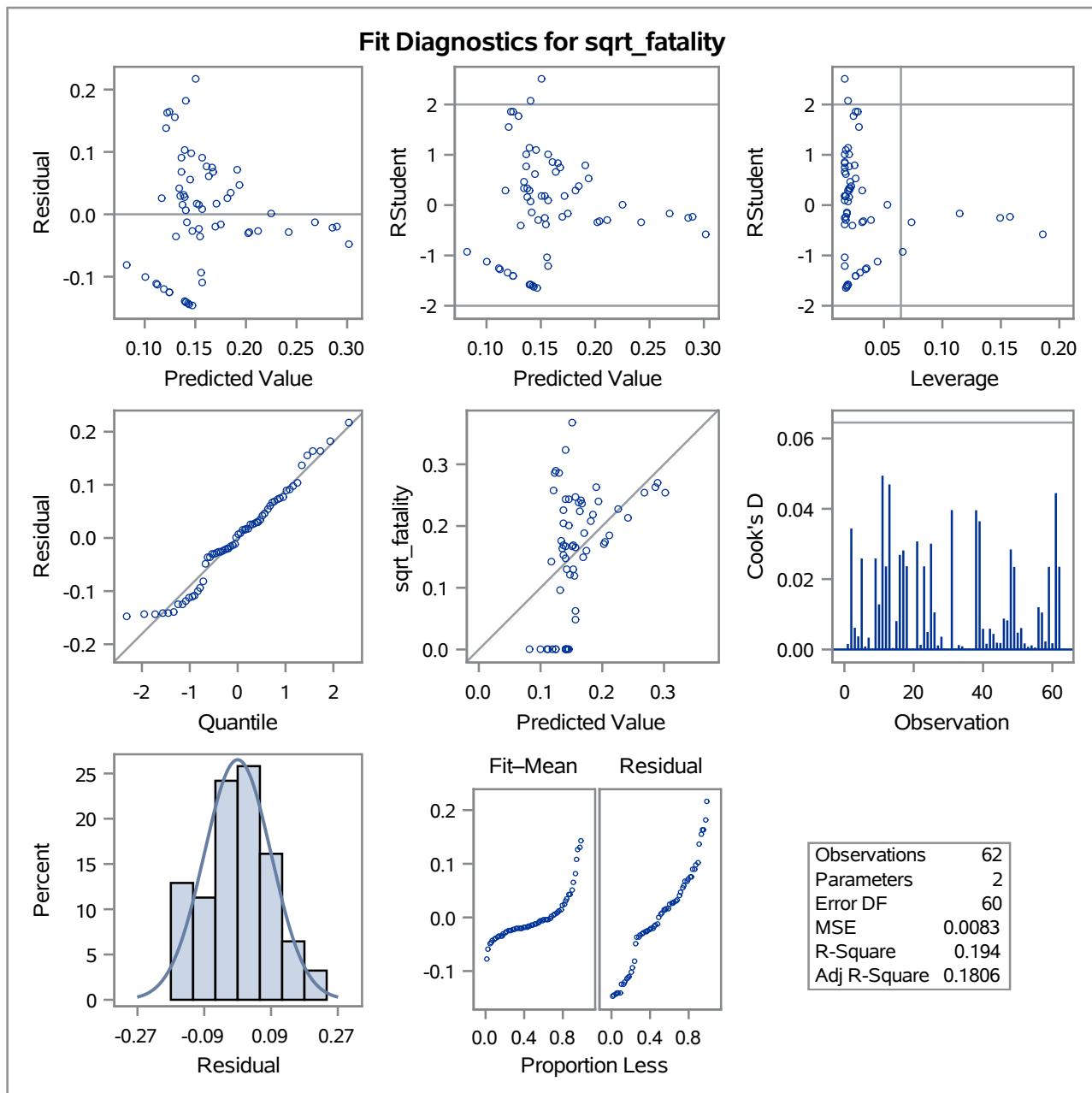
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	0.11969	0.11969	14.44	0.0003
Error	60	0.49716	0.00829		
Corrected Total	61	0.61684			

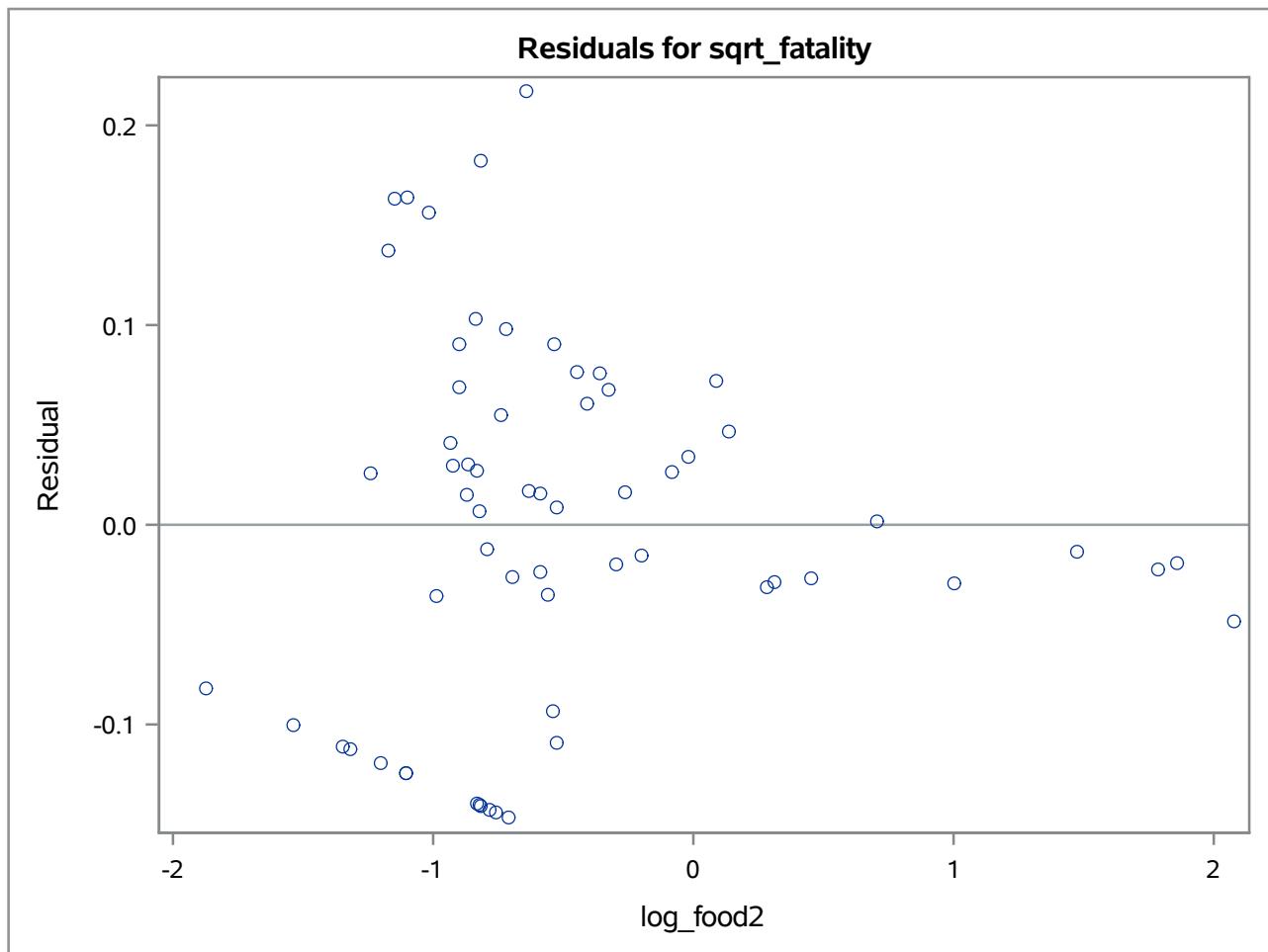
Root MSE	0.09103	R-Square	0.1940
Dependent Mean	0.15931	Adj R-Sq	0.1806
Coeff Var	57.13825		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	0.18612	0.01354	13.74	<.0001
log_food2	1	0.05565	0.01464	3.80	0.0003

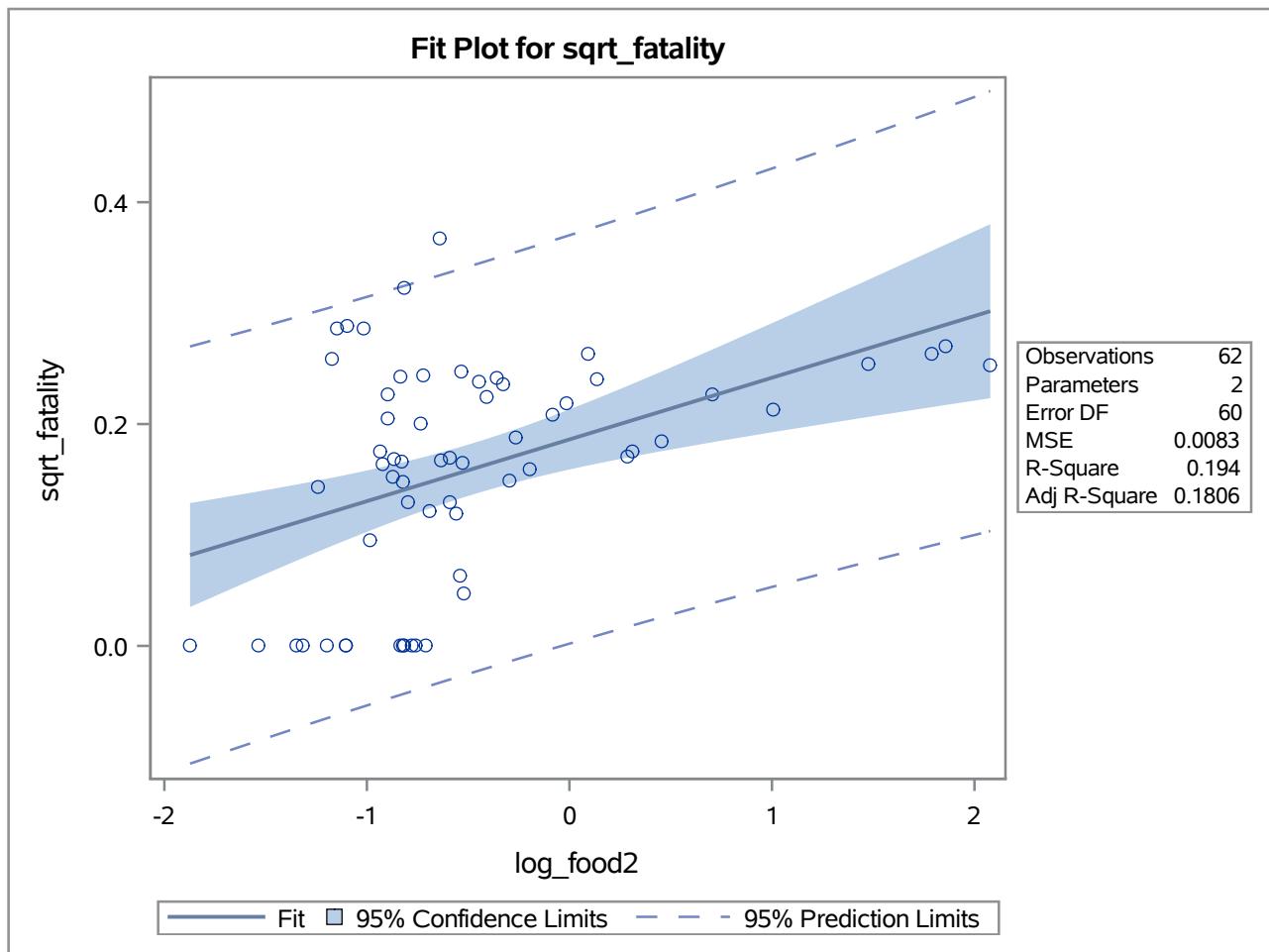
**The REG Procedure**  
**Model: MODEL3**  
**Dependent Variable: sqrt\_fatality**



The REG Procedure  
Model: MODEL3  
Dependent Variable: sqrt\_fatality



The REG Procedure  
Model: MODEL3  
Dependent Variable: sqrt\_fatality



**The REG Procedure**  
**Model: MODEL4**  
**Dependent Variable: sqrt\_fatality**

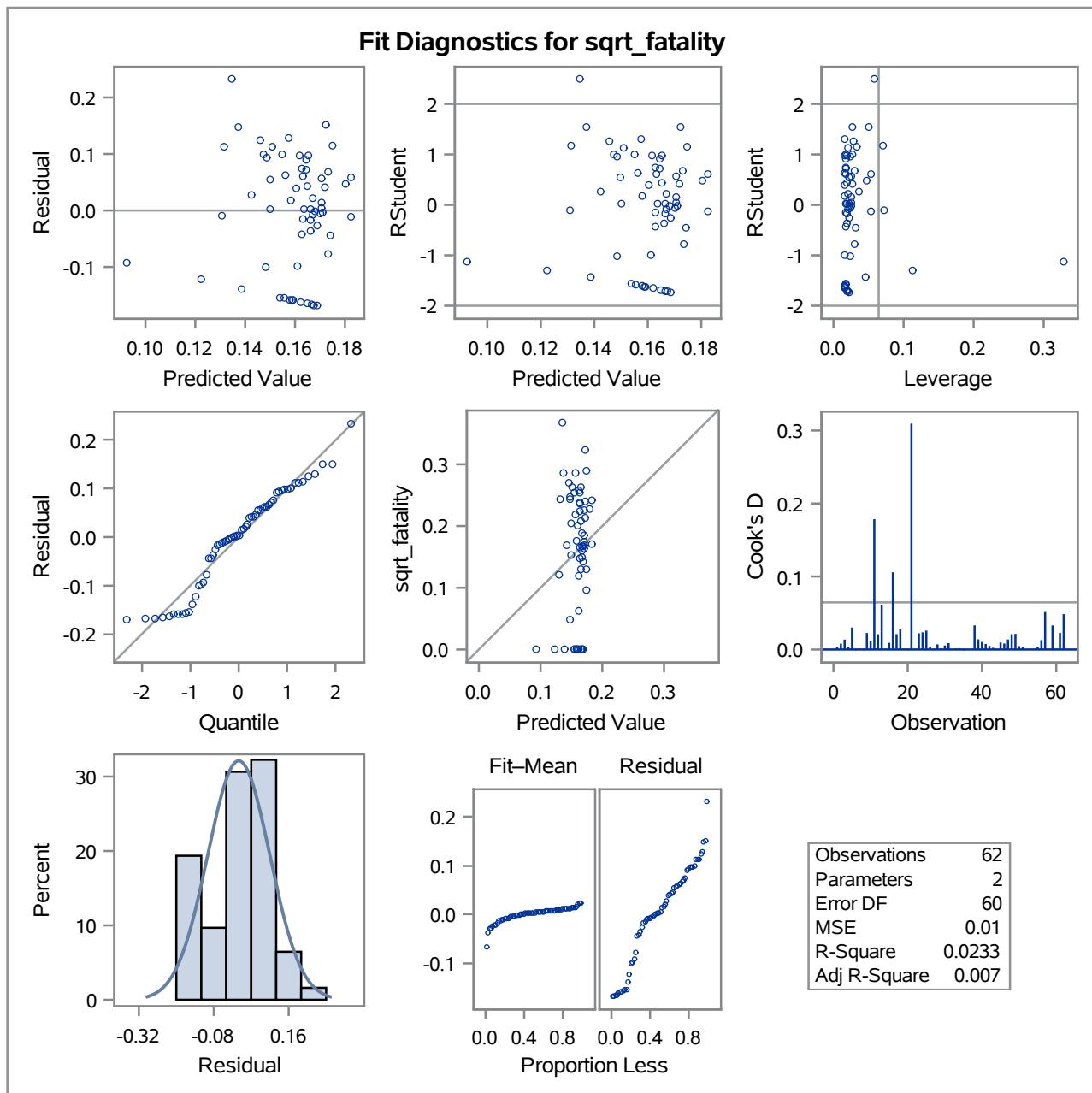
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	0.01435	0.01435	1.43	0.2366
Error	60	0.60249	0.01004		
Corrected Total	61	0.61684			

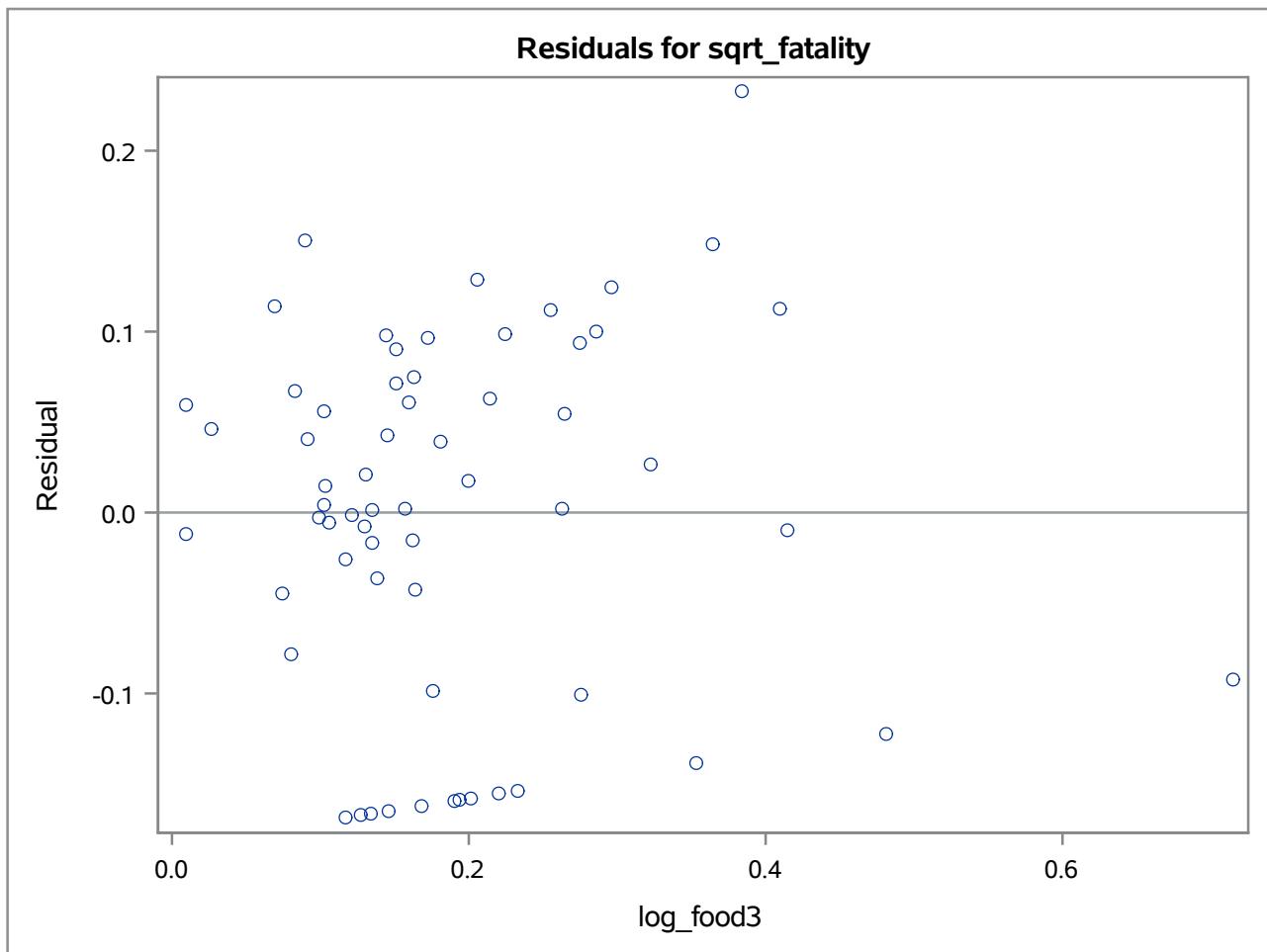
Root MSE	0.10021	R-Square	0.0233
Dependent Mean	0.15931	Adj R-Sq	0.0070
Coeff Var	62.90074		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	0.18365	0.02401	7.65	<.0001
log_food3	1	-0.12770	0.10682	-1.20	0.2366

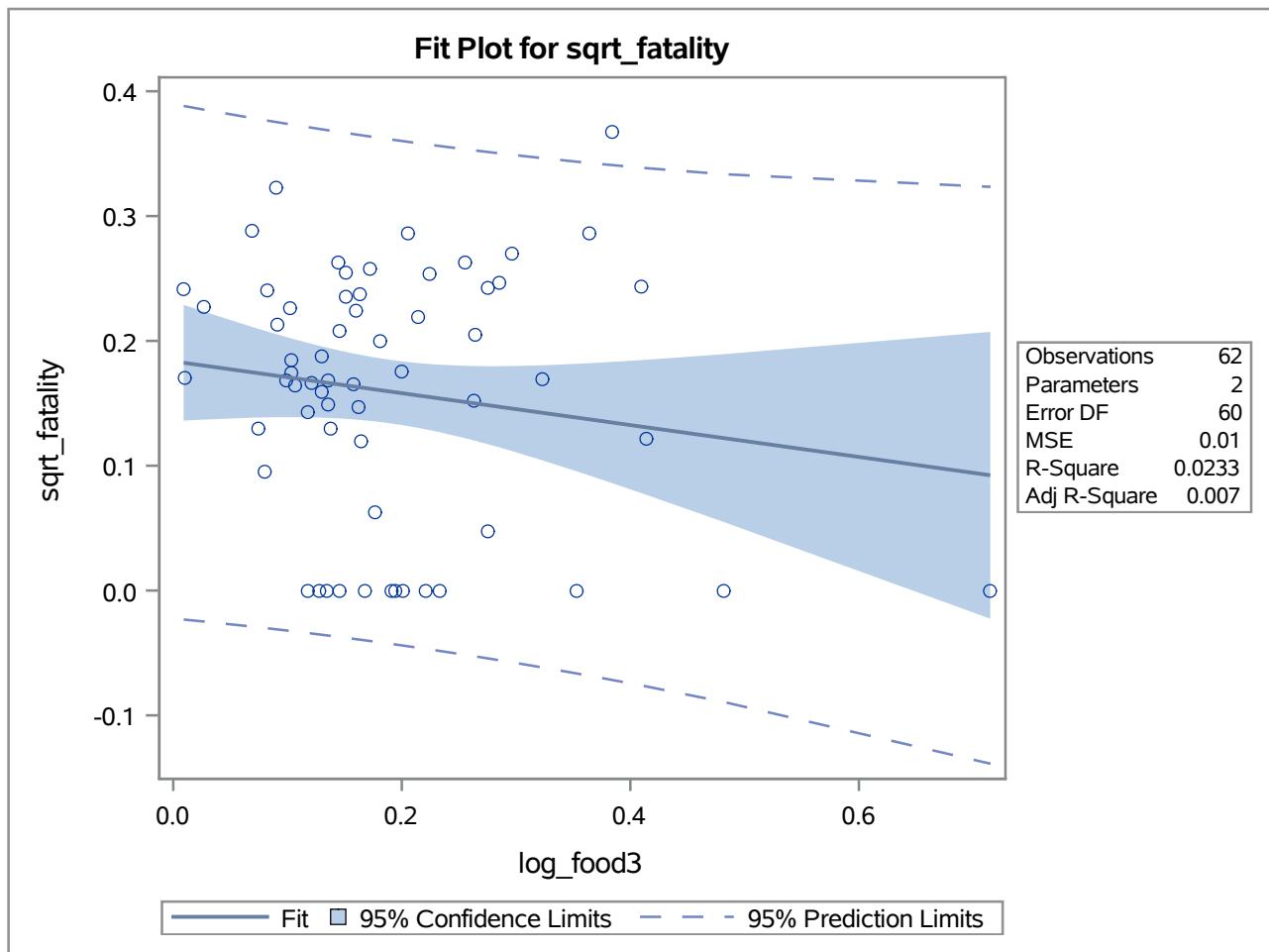
**The REG Procedure**  
**Model: MODEL4**  
**Dependent Variable: sqrt\_fatality**



The REG Procedure  
Model: MODEL4  
Dependent Variable: sqrt\_fatality



The REG Procedure  
Model: MODEL4  
Dependent Variable: sqrt\_fatality



**The REG Procedure**  
**Model: MODEL5**  
**Dependent Variable: sqrt\_fatality**

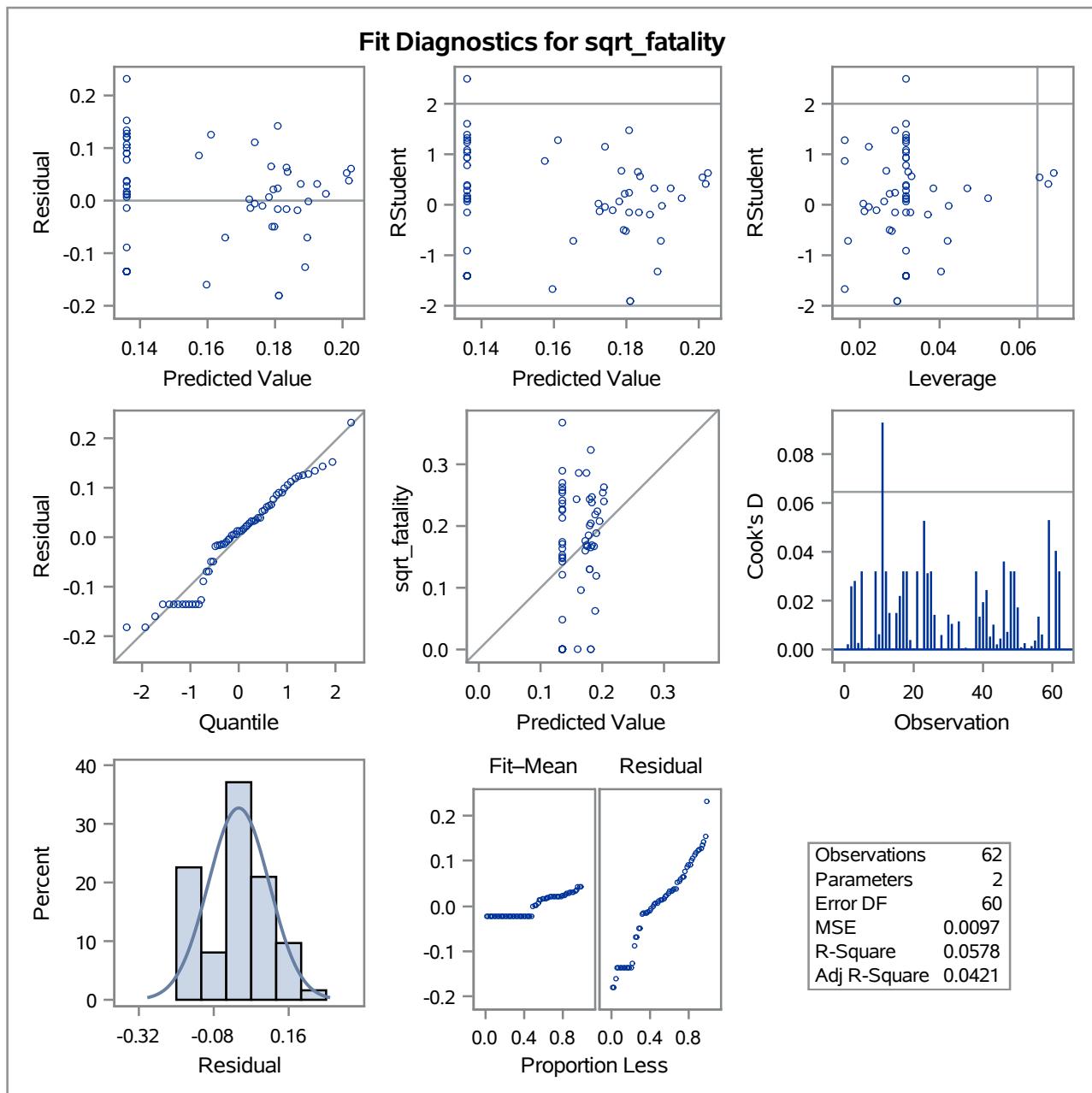
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	0.03563	0.03563	3.68	0.0599
Error	60	0.58122	0.00969		
Corrected Total	61	0.61684			

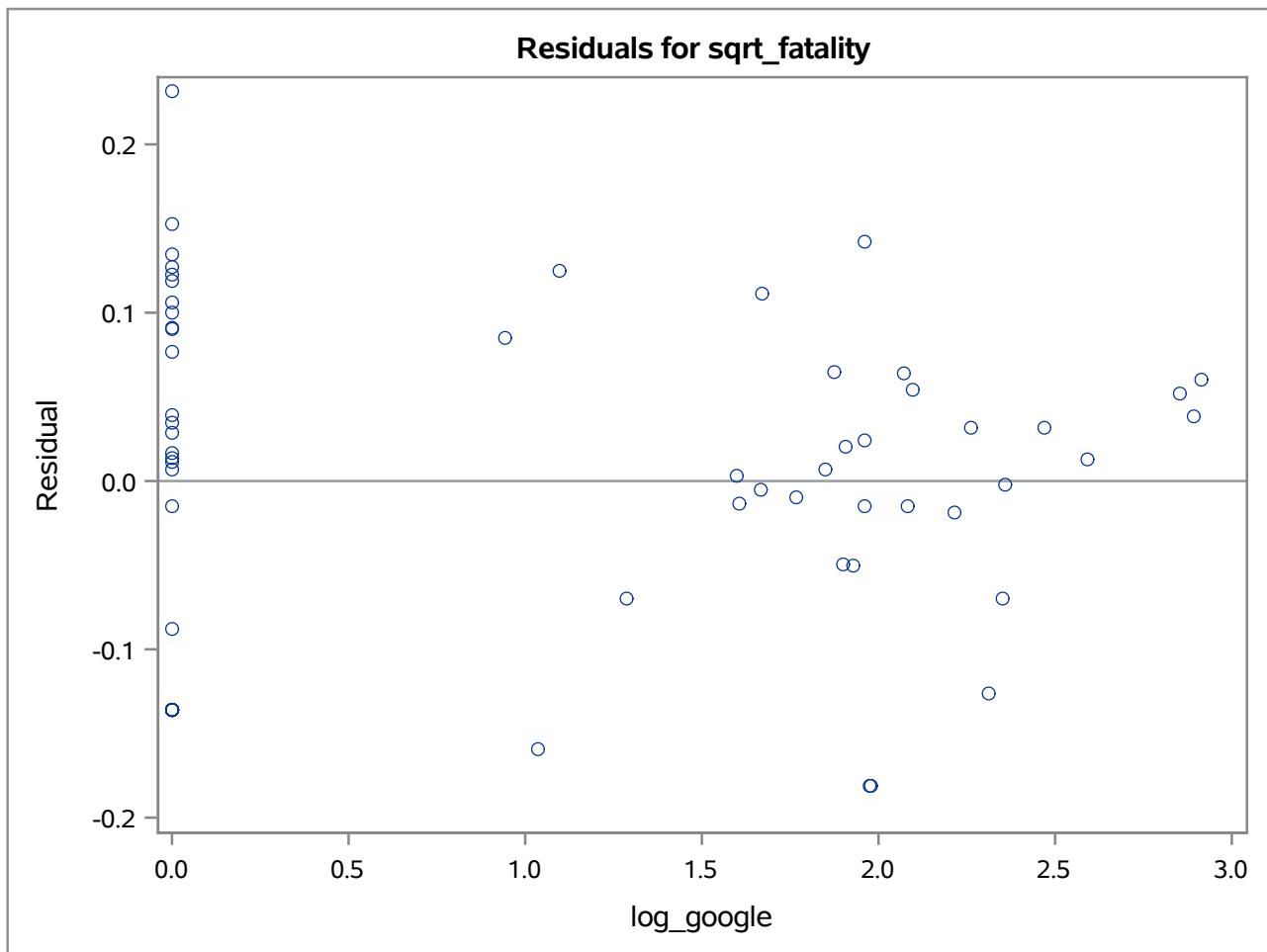
Root MSE	0.09842	R-Square	0.0578
Dependent Mean	0.15931	Adj R-Sq	0.0421
Coeff Var	61.78017		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	0.13594	0.01746	7.79	<.0001
log_google	1	0.02284	0.01191	1.92	0.0599

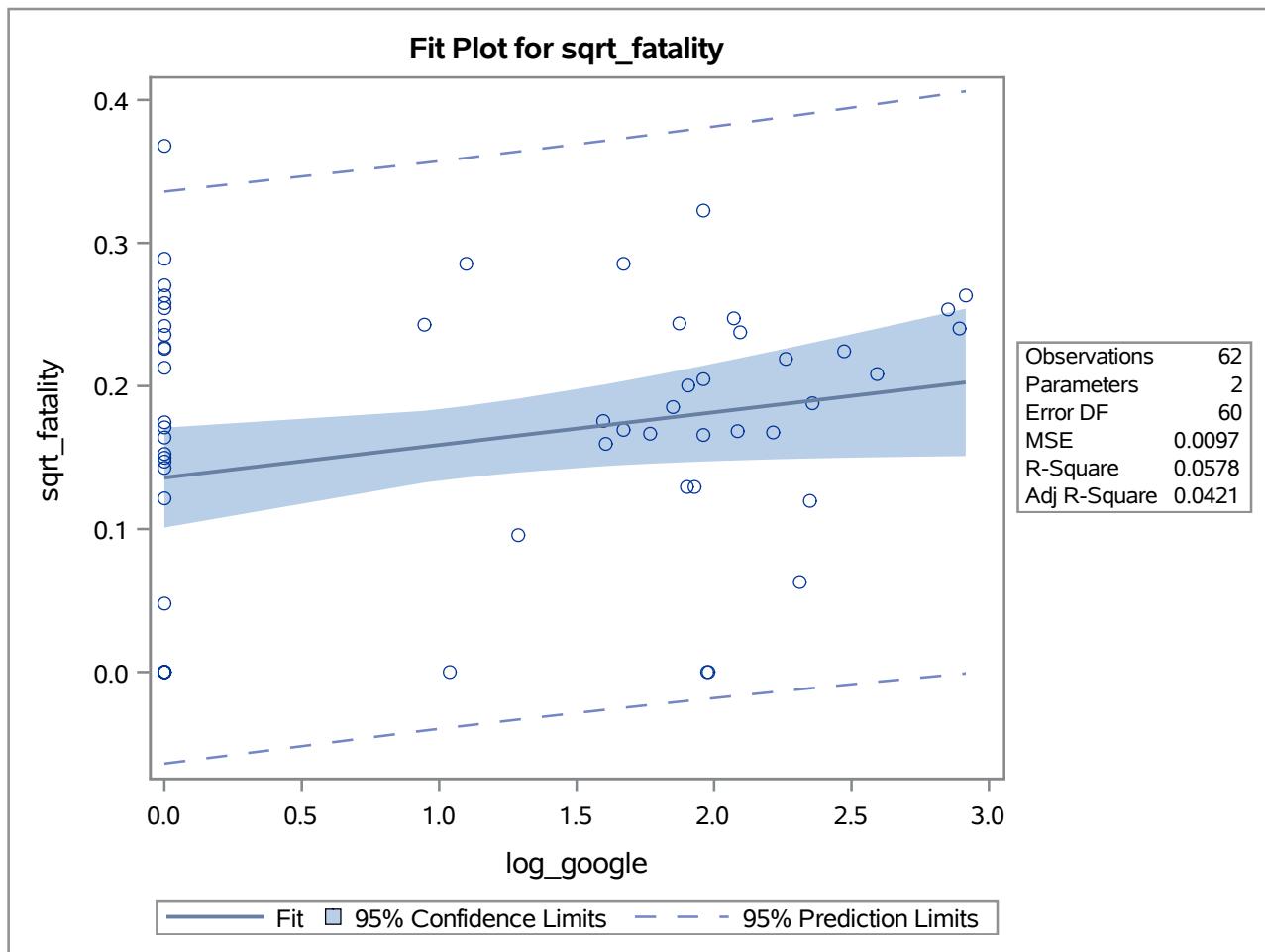
**The REG Procedure**  
**Model: MODEL5**  
**Dependent Variable: sqrt\_fatality**



The REG Procedure  
Model: MODEL5  
Dependent Variable: sqrt\_fatality



The REG Procedure  
Model: MODEL5  
Dependent Variable: sqrt\_fatality



**The REG Procedure**  
**Model: MODEL6**  
**Dependent Variable: sqrt\_fatality**

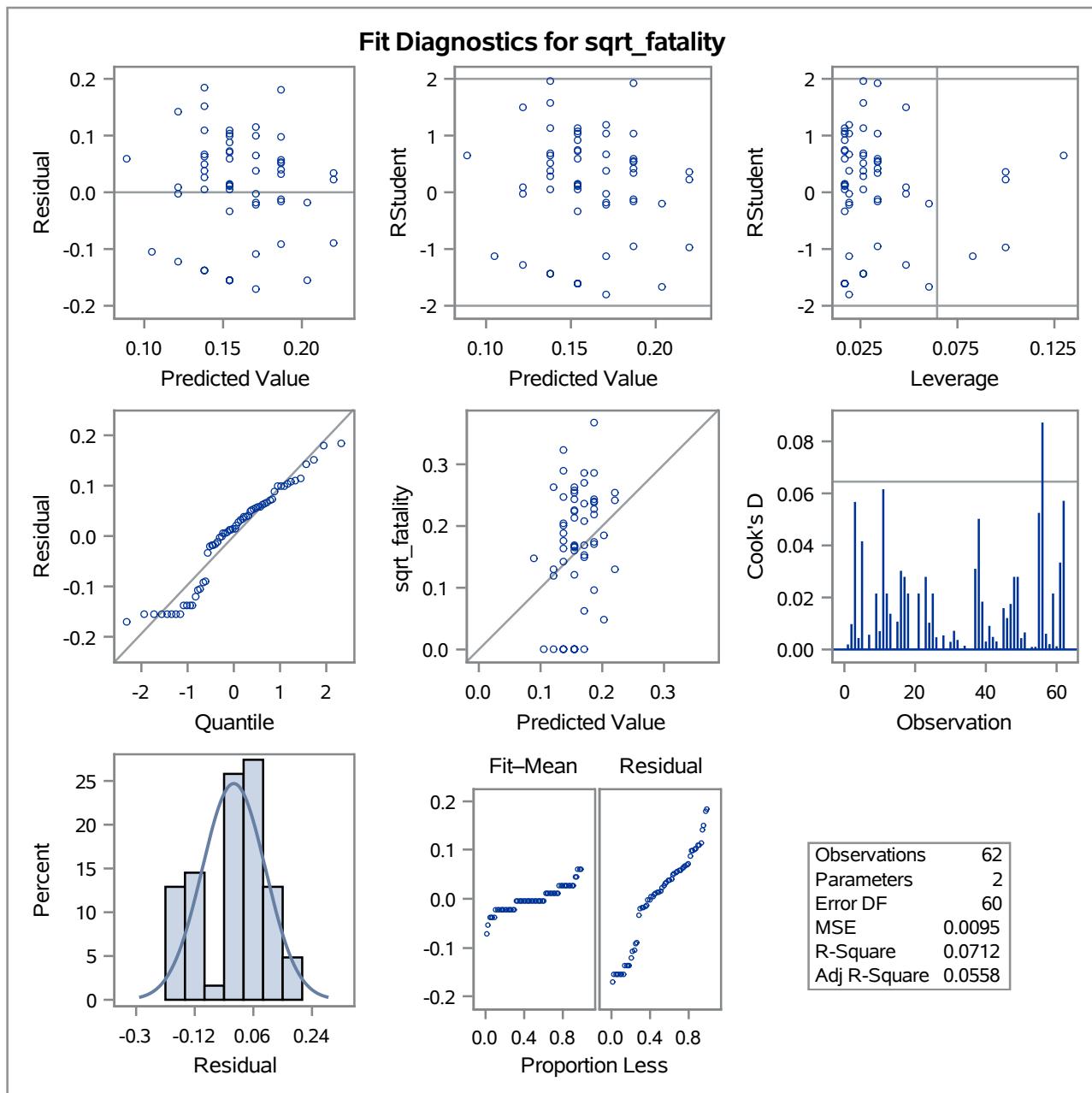
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	0.04394	0.04394	4.60	0.0360
Error	60	0.57290	0.00955		
Corrected Total	61	0.61684			

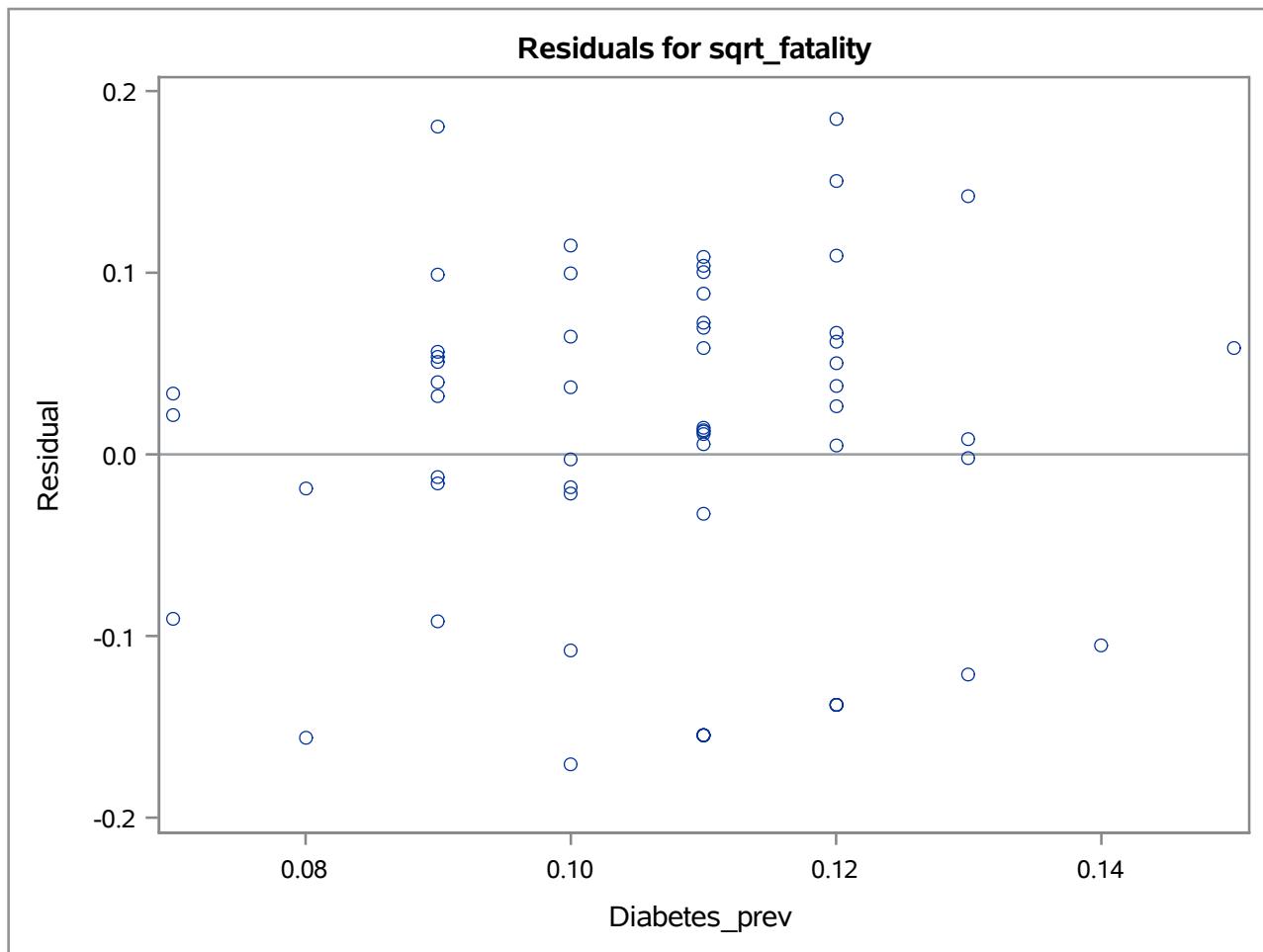
Root MSE	0.09772	R-Square	0.0712
Dependent Mean	0.15931	Adj R-Sq	0.0558
Coeff Var	61.33651		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	0.33480	0.08274	4.05	0.0002
Diabetes_prev	1	-1.64105	0.76495	-2.15	0.0360

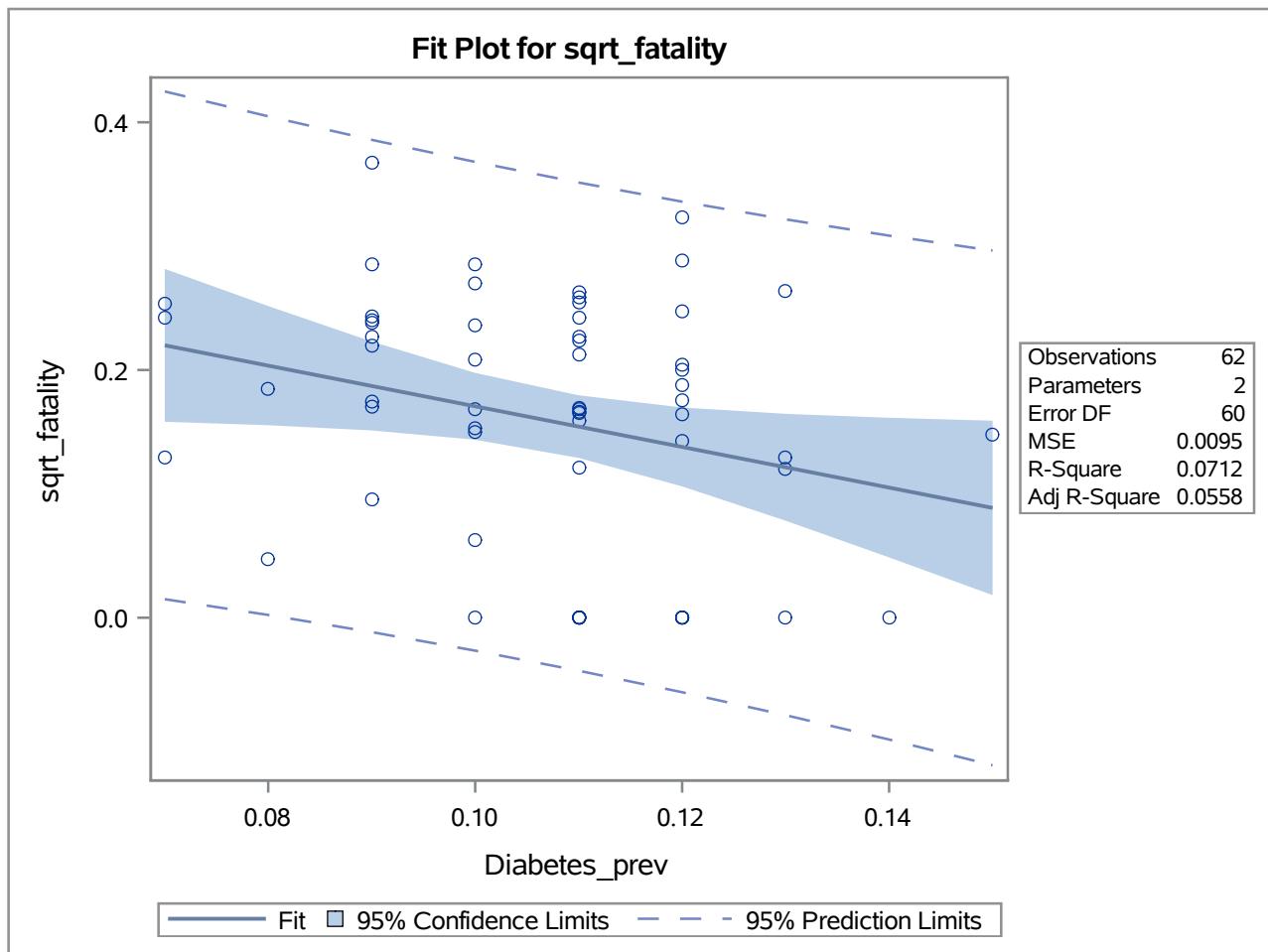
**The REG Procedure**  
**Model: MODEL6**  
**Dependent Variable: sqrt\_fatality**



The REG Procedure  
Model: MODEL6  
Dependent Variable: sqrt\_fatality



The REG Procedure  
Model: MODEL6  
Dependent Variable: sqrt\_fatality



**The REG Procedure**  
**Model: MODEL7**  
**Dependent Variable: sqrt\_fatality**

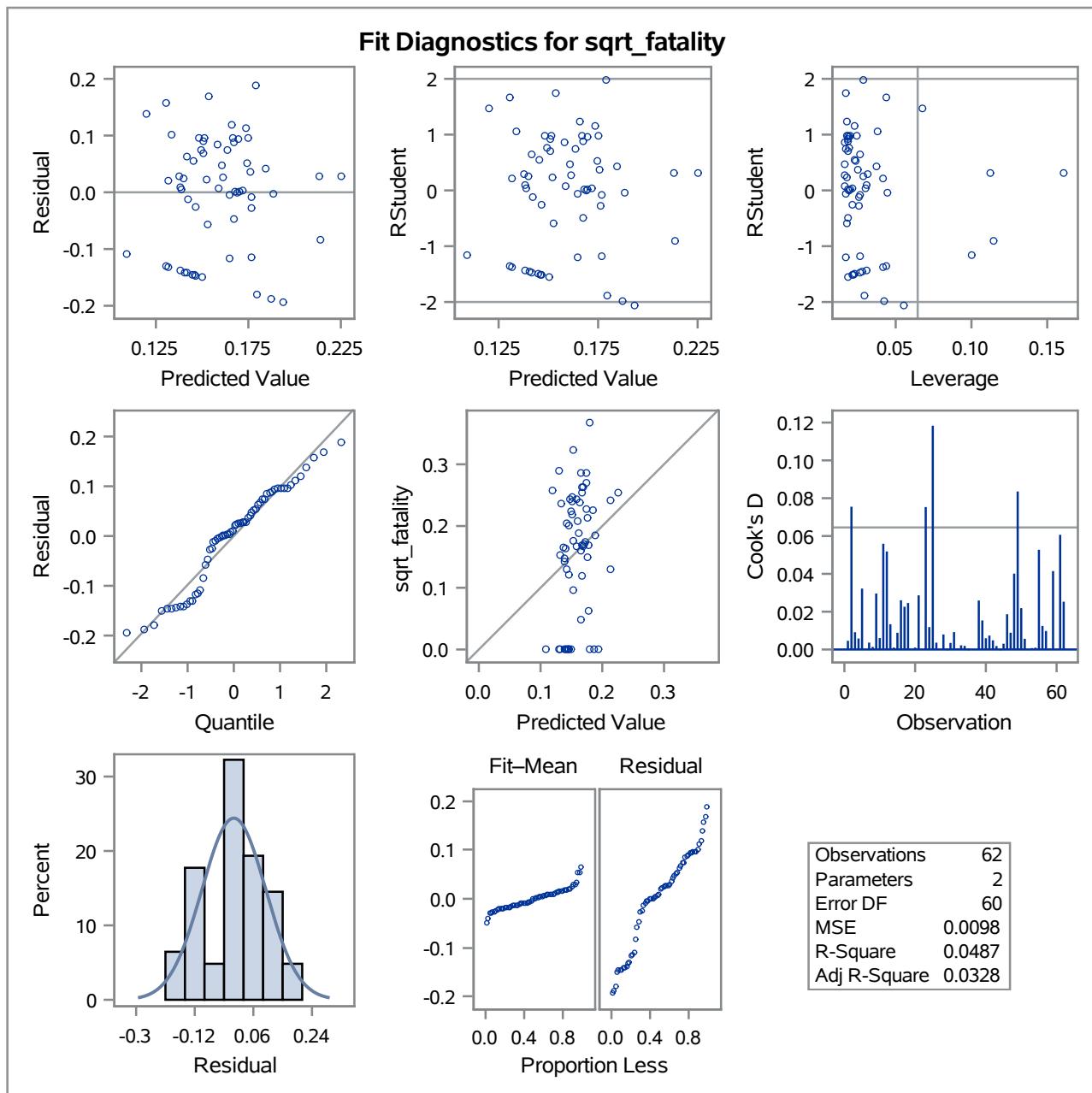
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	0.03004	0.03004	3.07	0.0848
Error	60	0.58680	0.00978		
Corrected Total	61	0.61684			

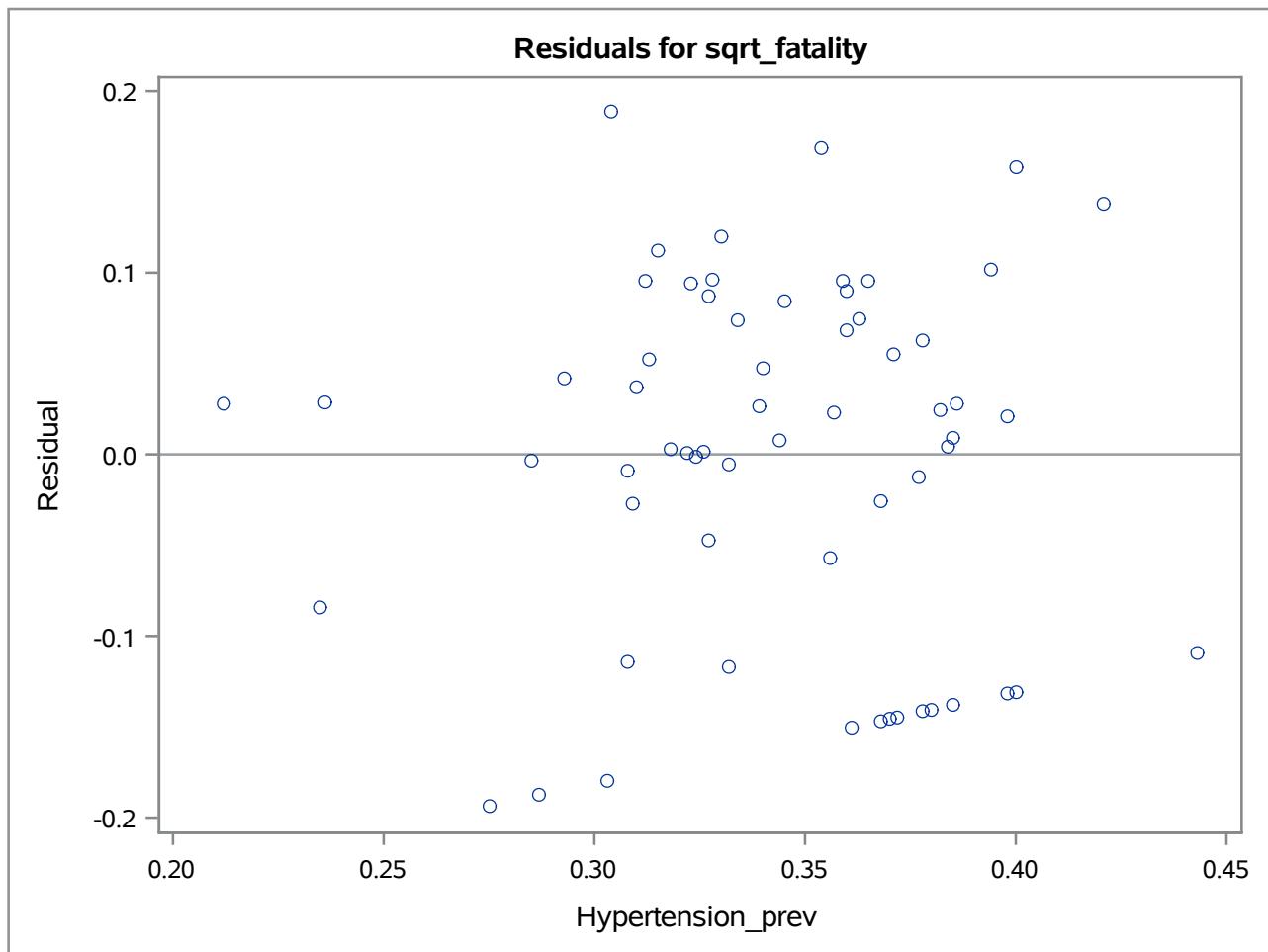
Root MSE	0.09889	R-Square	0.0487
Dependent Mean	0.15931	Adj R-Sq	0.0328
Coeff Var	62.07630		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	0.33192	0.09929	3.34	0.0014
Hypertension_prev	1	-0.50318	0.28710	-1.75	0.0848

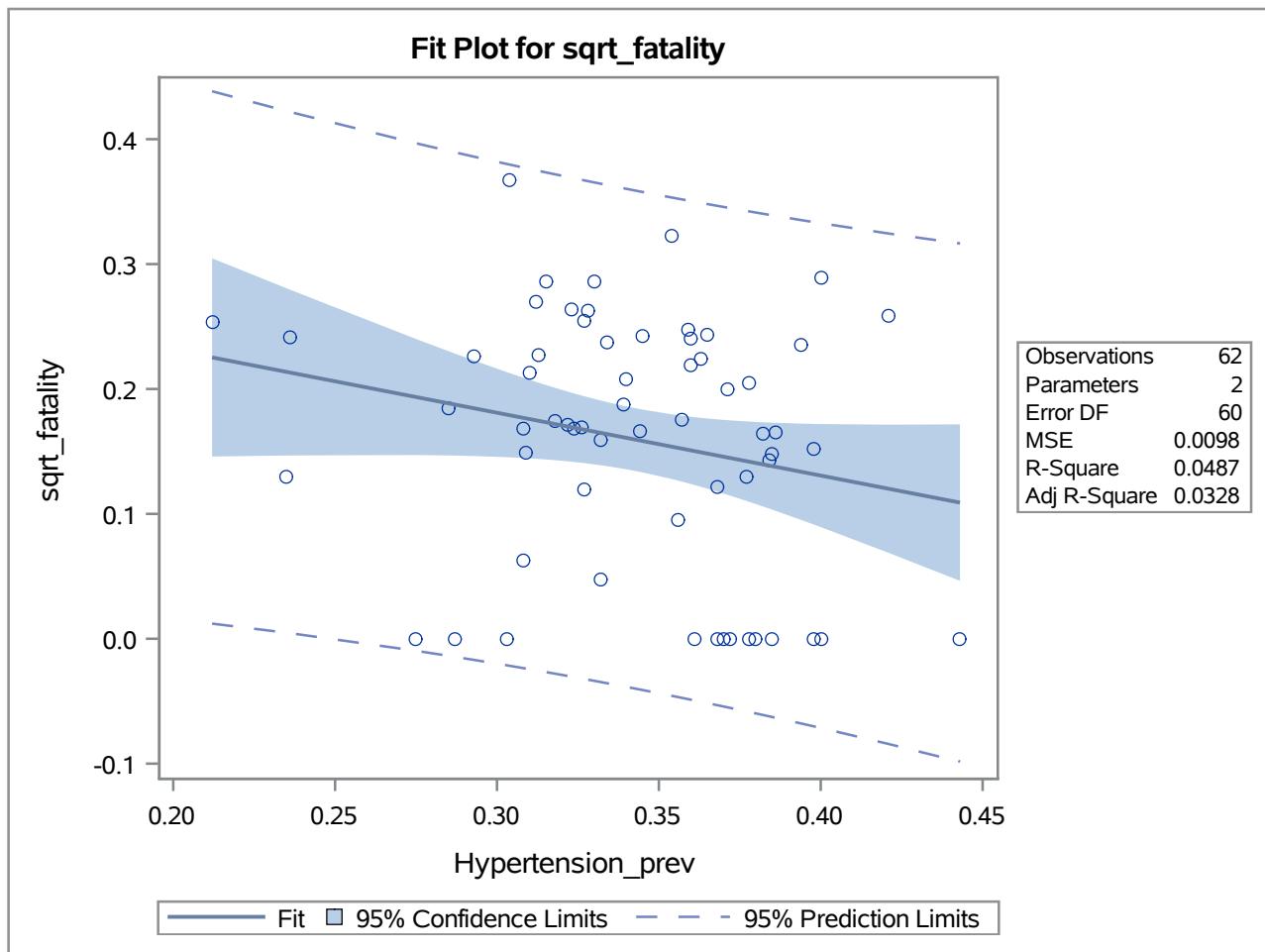
**The REG Procedure**  
**Model: MODEL7**  
**Dependent Variable: sqrt\_fatality**



The REG Procedure  
Model: MODEL7  
Dependent Variable: sqrt\_fatality



The REG Procedure  
Model: MODEL7  
Dependent Variable: sqrt\_fatality



**The REG Procedure**  
**Model: MODEL8**  
**Dependent Variable: sqrt\_fatality**

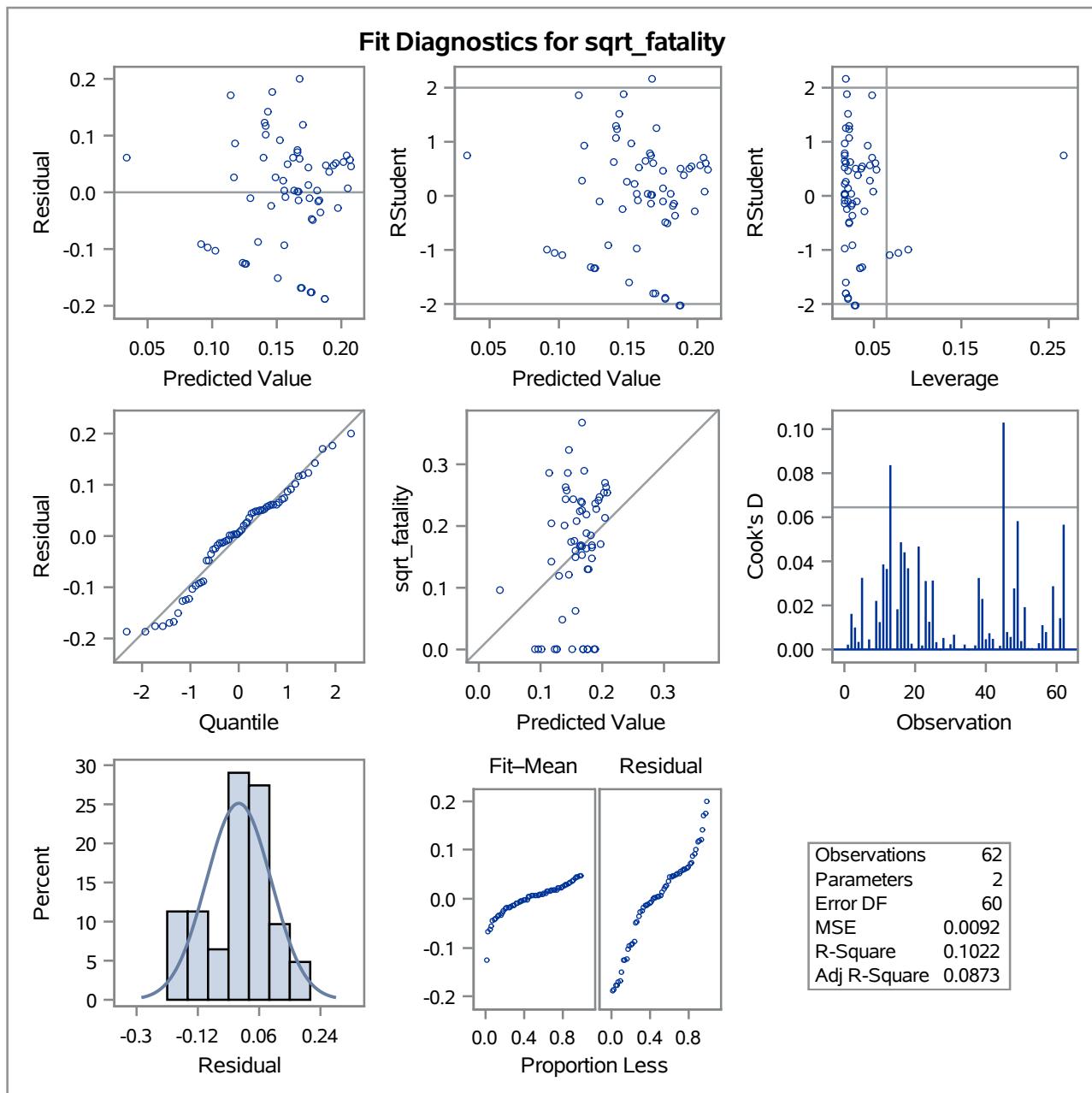
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	0.06306	0.06306	6.83	0.0113
Error	60	0.55379	0.00923		
Corrected Total	61	0.61684			

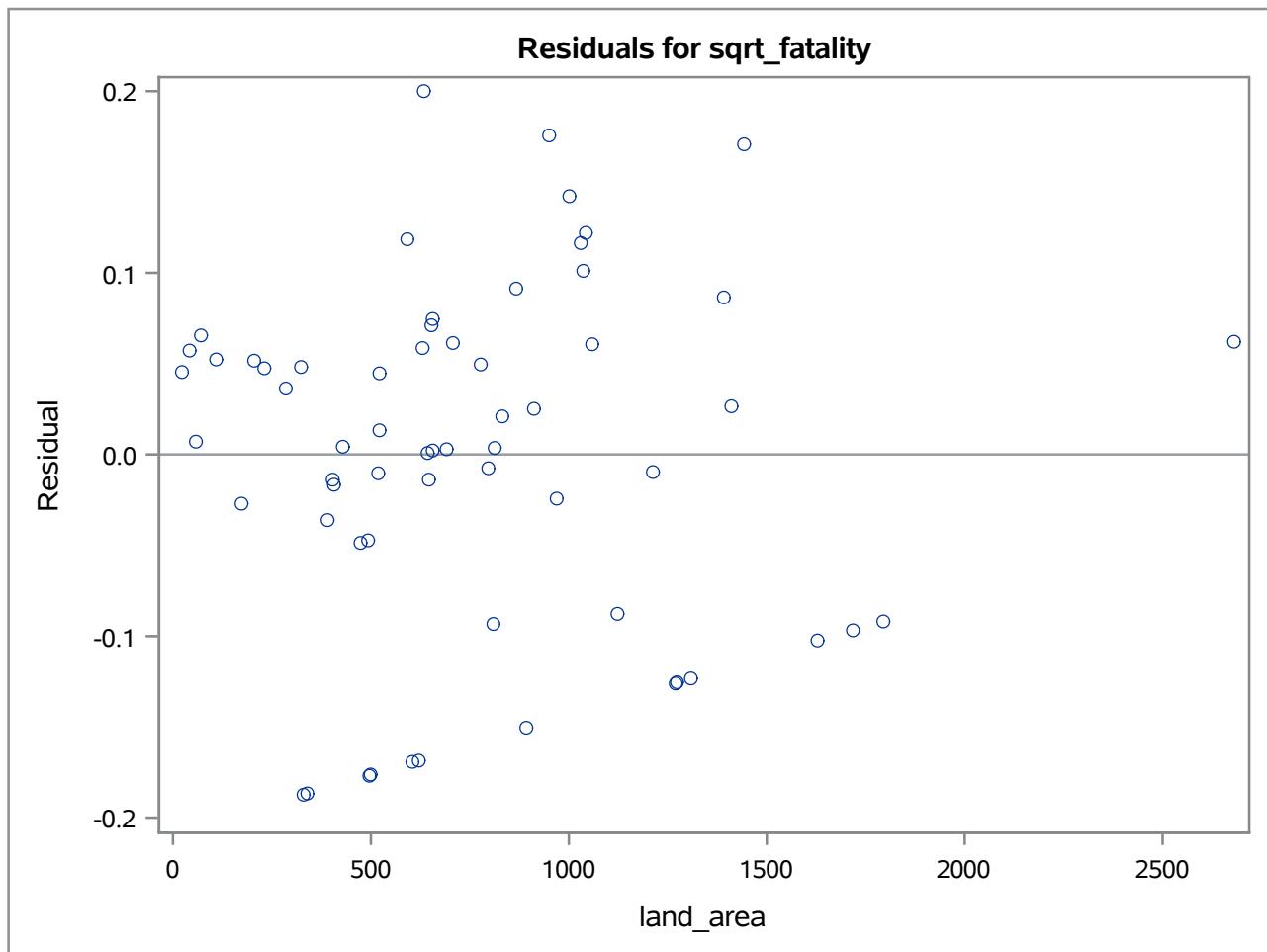
Root MSE	0.09607	R-Square	0.1022
Dependent Mean	0.15931	Adj R-Sq	0.0873
Coeff Var	60.30473		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	0.20910	0.02262	9.24	<.0001
land_area	1	-0.00006551	0.00002506	-2.61	0.0113

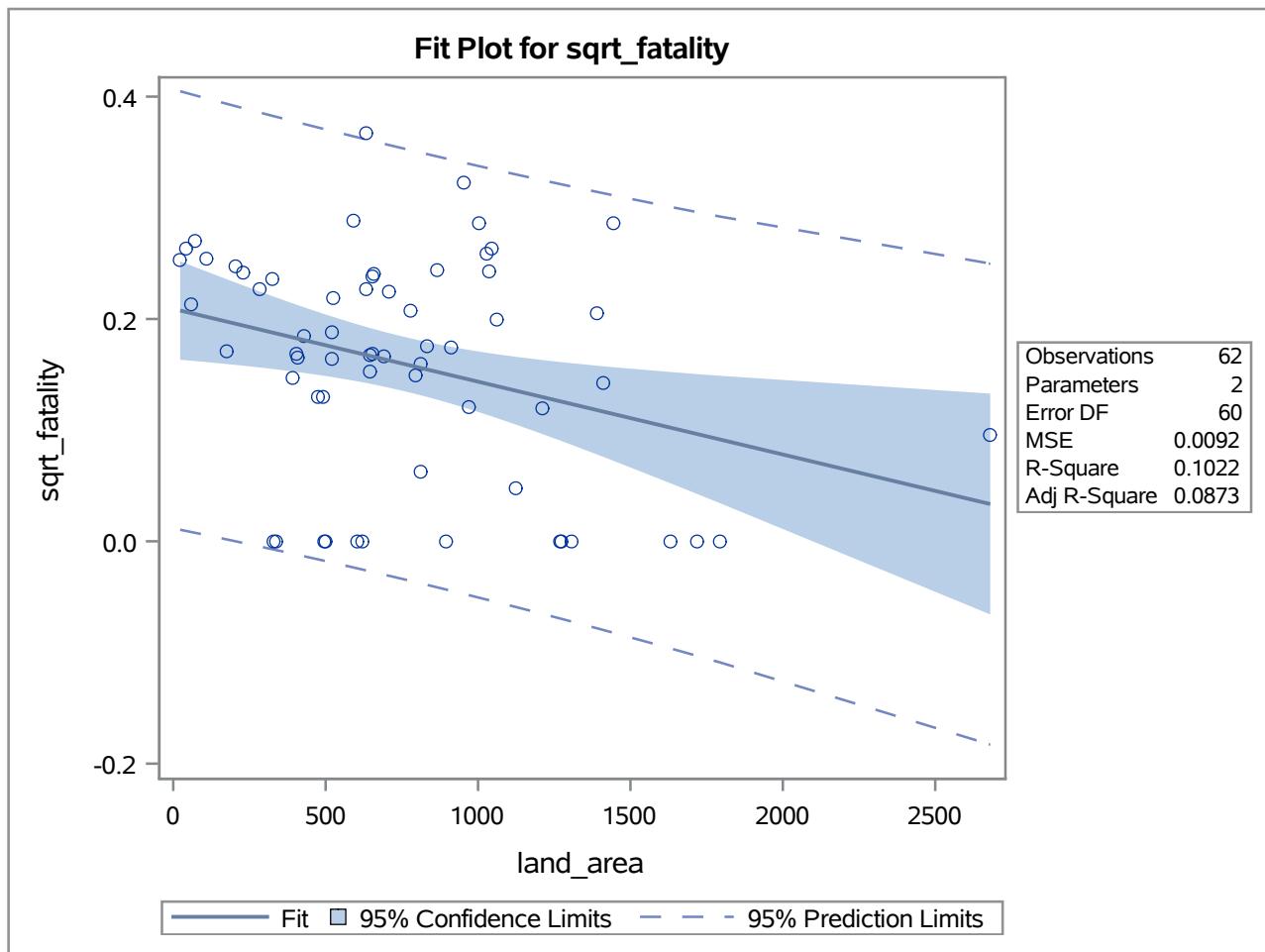
**The REG Procedure**  
**Model: MODEL8**  
**Dependent Variable: sqrt\_fatality**



The REG Procedure  
Model: MODEL8  
Dependent Variable: sqrt\_fatality



The REG Procedure  
Model: MODEL8  
Dependent Variable: sqrt\_fatality



**The REG Procedure**  
**Model: MODEL9**  
**Dependent Variable: sqrt\_fatality**

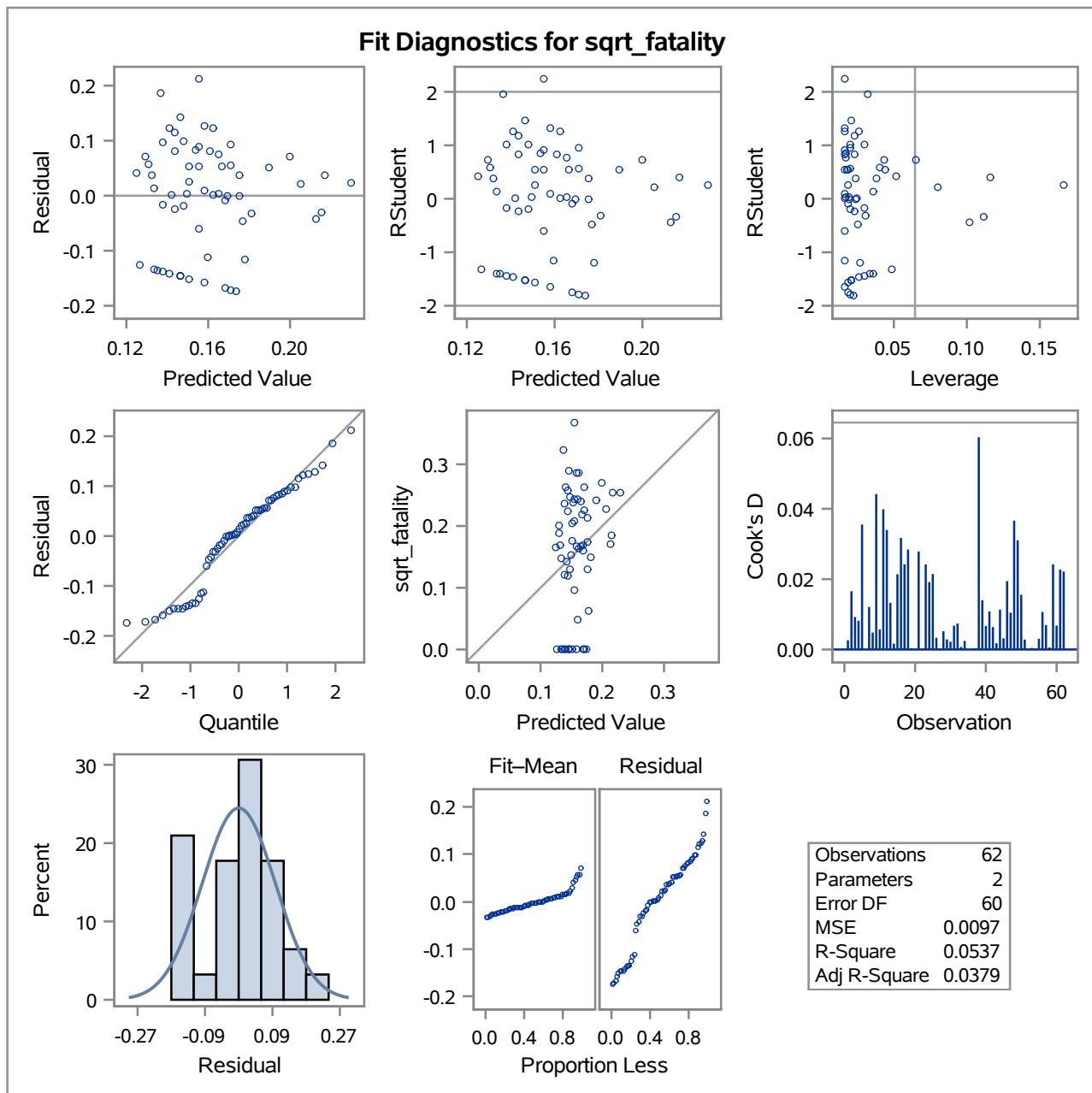
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	0.03312	0.03312	3.40	0.0700
Error	60	0.58372	0.00973		
Corrected Total	61	0.61684			

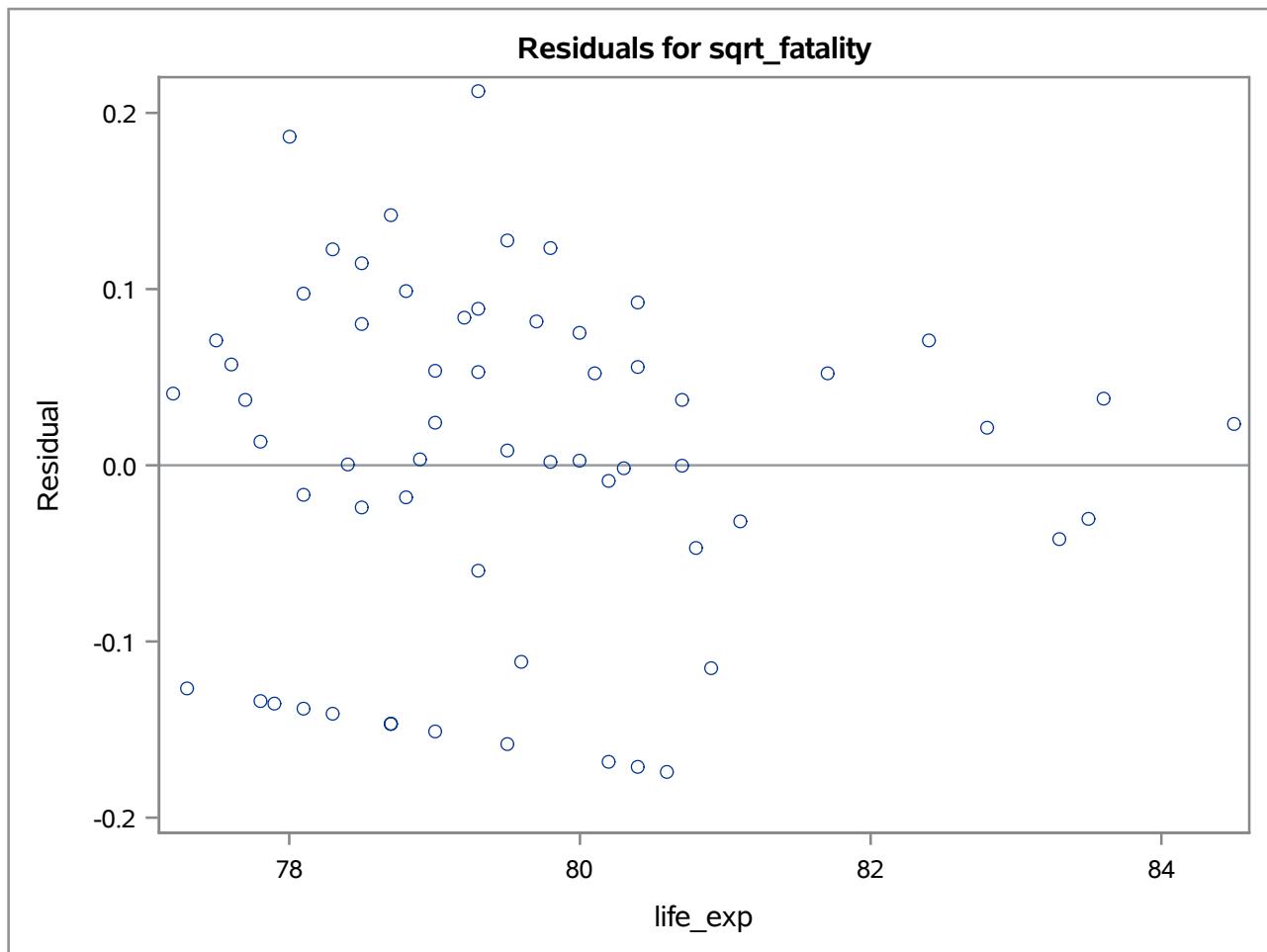
Root MSE	0.09863	R-Square	0.0537
Dependent Mean	0.15931	Adj R-Sq	0.0379
Coeff Var	61.91333		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	-0.98278	0.61913	-1.59	0.1177
life_exp	1	0.01435	0.00778	1.85	0.0700

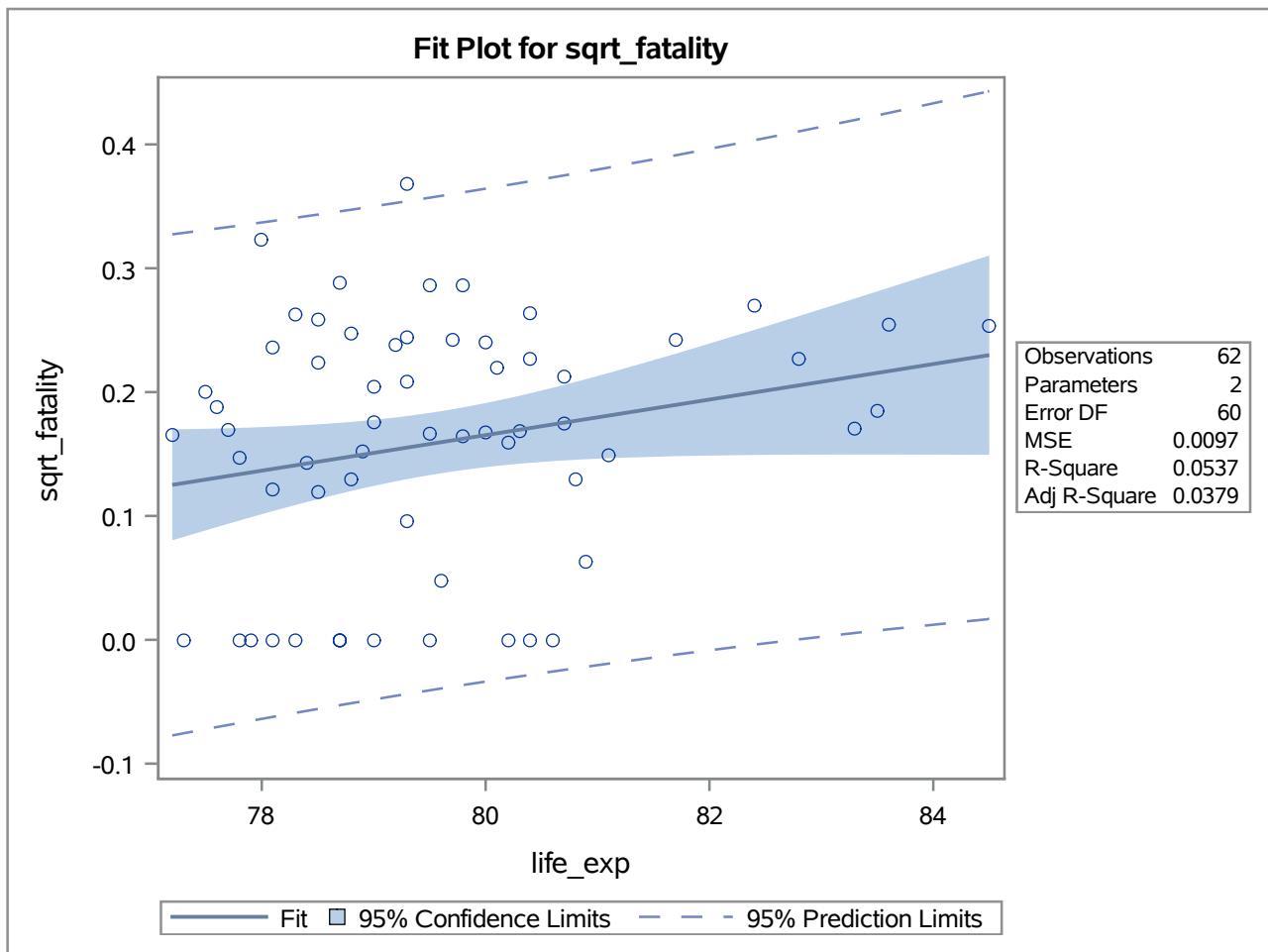
**The REG Procedure**  
**Model: MODEL9**  
**Dependent Variable: sqrt\_fatality**



The REG Procedure  
Model: MODEL9  
Dependent Variable: sqrt\_fatality



The REG Procedure  
Model: MODEL9  
Dependent Variable: sqrt\_fatality



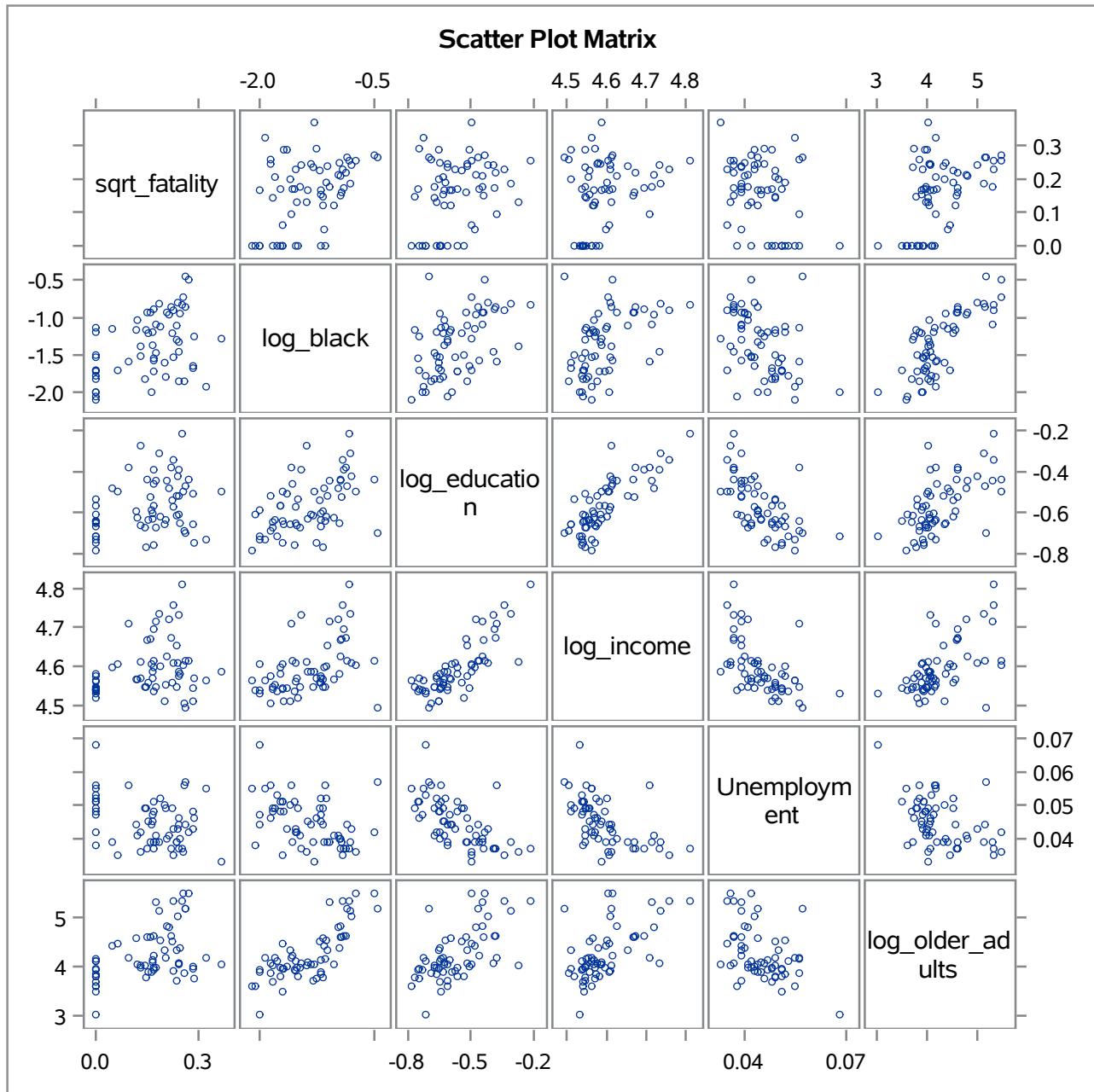
## The CORR Procedure

<b>6 Variables:</b>	sqrt_fatality	log_black	log_education	log_income	Unemployment	log_older_adults
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Simple Statistics						
Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
<b>sqrt_fatality</b>	62	0.15931	0.10056	9.87725	0	0.36761
<b>log_black</b>	62	-1.35680	0.40852	-84.12163	-2.09691	-0.44977
<b>log_education</b>	62	-0.56737	0.13047	-35.17708	-0.78516	-0.21396
<b>log_income</b>	62	4.59427	0.06759	284.84451	4.49361	4.81062
<b>Unemployment</b>	62	0.04490	0.00696	2.78400	0.03300	0.06800
<b>log_older_adults</b>	62	4.25480	0.52911	263.79750	3.02776	5.47845

Pearson Correlation Coefficients, N = 62 Prob >  r  under H0: Rho=0						
	sqrt_fatality	log_black	log_education	log_income	Unemployment	log_older_adults
<b>sqrt_fatality</b>	1.00000 0.0007	0.41761 0.0007	0.29178 0.0214	0.25011 0.0499	-0.33824 0.0072	0.44689 0.0003
<b>log_black</b>	0.41761 0.0007	1.00000	0.49515 <.0001	0.46601 0.0001	-0.42814 0.0005	0.77770 <.0001
<b>log_education</b>	0.29178 0.0214	0.49515 <.0001	1.00000	0.80911 <.0001	-0.63680 <.0001	0.61426 <.0001
<b>log_income</b>	0.25011 0.0499	0.46601 0.0001	0.80911 <.0001	1.00000	-0.55273 <.0001	0.58770 <.0001
<b>Unemployment</b>	-0.33824 0.0072	-0.42814 0.0005	-0.63680 <.0001	-0.55273 <.0001	1.00000	-0.45229 0.0002
<b>log_older_adults</b>	0.44689 0.0003	0.77770 <.0001	0.61426 <.0001	0.58770 <.0001	-0.45229 0.0002	1.00000

## The CORR Procedure



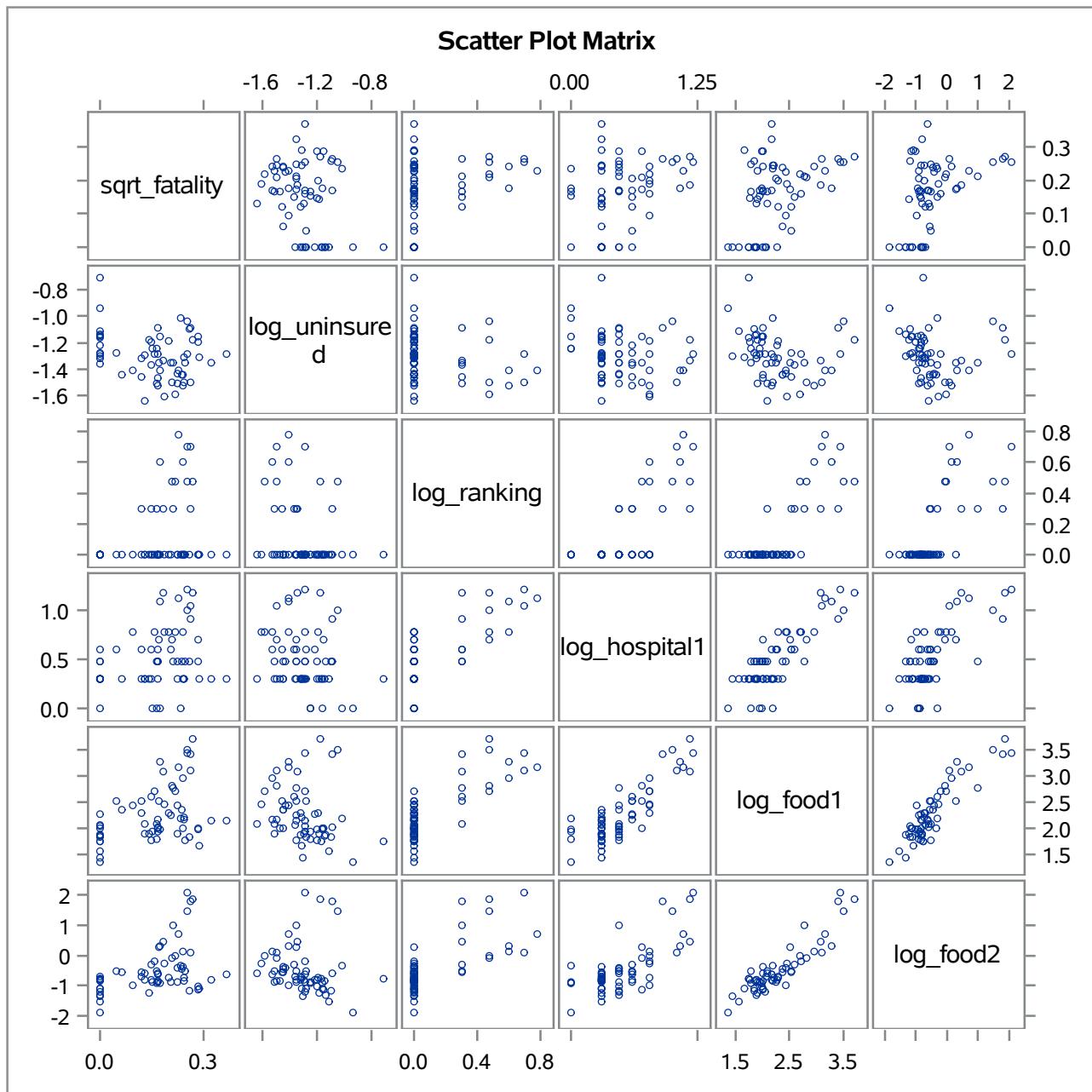
## The CORR Procedure

<b>6 Variables:</b>	sqrt_fatality	log_uninsured	log_ranking	log_hospital1	log_food1	log_food2
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Simple Statistics						
Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
<b>sqrt_fatality</b>	62	0.15931	0.10056	9.87725	0	0.36761
<b>log_uninsured</b>	62	-1.29845	0.17166	-80.50370	-1.63827	-0.70774
<b>log_ranking</b>	62	0.11443	0.21991	7.09488	0	0.77815
<b>log_hospital1</b>	62	0.50394	0.30404	31.24411	0	1.20412
<b>log_food1</b>	62	2.27758	0.52782	141.21004	1.36173	3.70825
<b>log_food2</b>	62	-0.48171	0.79602	-29.86624	-1.87322	2.07797

Pearson Correlation Coefficients, N = 62 Prob >  r  under H0: Rho=0						
	sqrt_fatality	log_uninsured	log_ranking	log_hospital1	log_food1	log_food2
<b>sqrt_fatality</b>	1.00000	-0.26009 0.0412	0.32698 0.0095	0.32163 0.0108	0.42511 0.0006	0.44049 0.0003
<b>log_uninsured</b>	-0.26009 0.0412	1.00000	-0.24166 0.0585	-0.22327 0.0811	-0.23920 0.0611	-0.11725 0.3641
<b>log_ranking</b>	0.32698 0.0095	-0.24166 0.0585	1.00000	0.73504 <.0001	0.79885 <.0001	0.73555 <.0001
<b>log_hospital1</b>	0.32163 0.0108	-0.22327 0.0811	0.73504 <.0001	1.00000	0.84553 <.0001	0.72477 <.0001
<b>log_food1</b>	0.42511 0.0006	-0.23920 0.0611	0.79885 <.0001	0.84553 <.0001	1.00000	0.90196 <.0001
<b>log_food2</b>	0.44049 0.0003	-0.11725 0.3641	0.73555 <.0001	0.72477 <.0001	0.90196 <.0001	1.00000

## The CORR Procedure



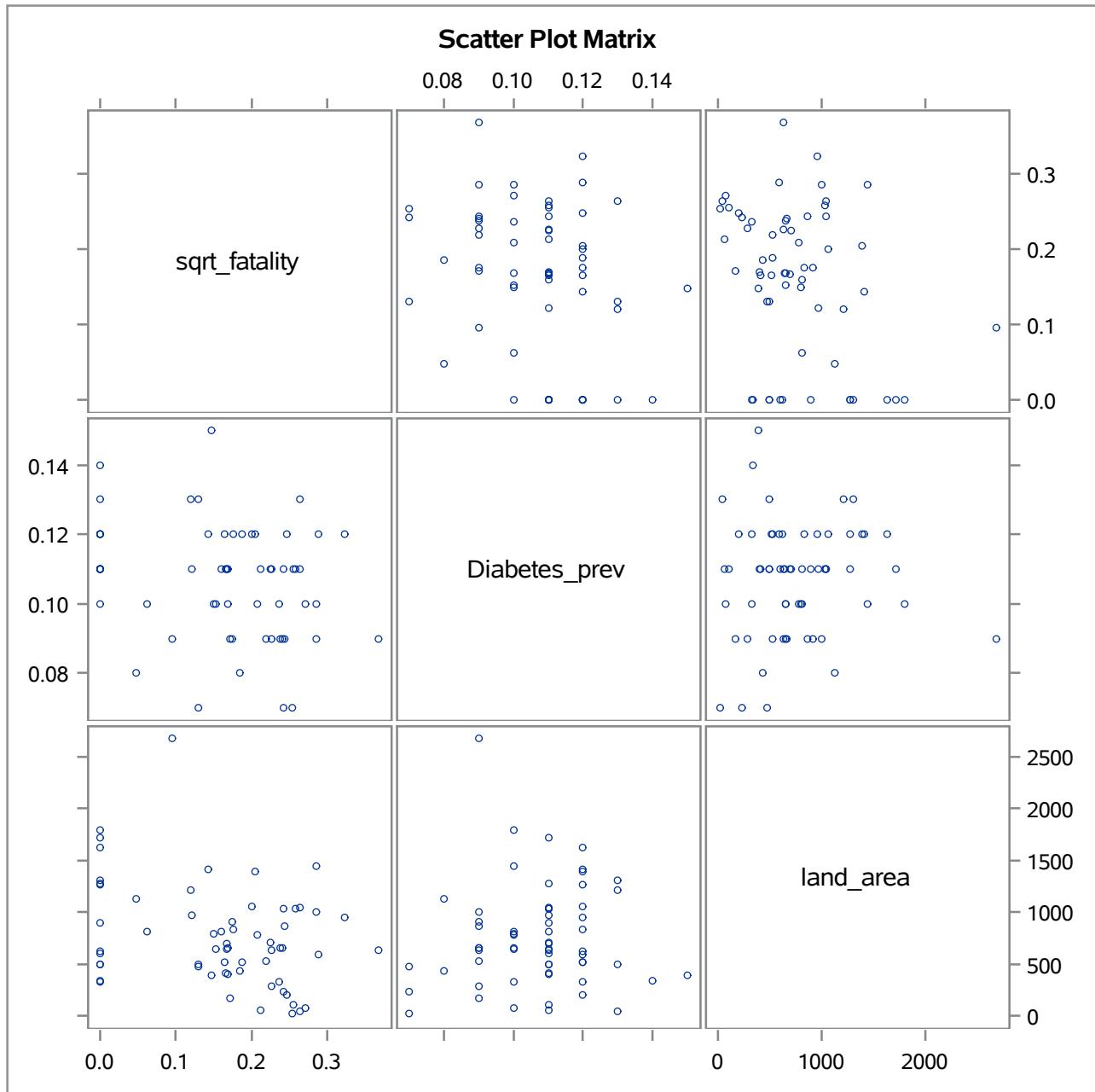
### The CORR Procedure

<b>3 Variables:</b>	sqrt_fatality	Diabetes_prev	land_area
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Simple Statistics						
Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
sqrt_fatality	62	0.15931	0.10056	9.87725	0	0.36761
Diabetes_prev	62	0.10694	0.01636	6.63000	0.07000	0.15000
land_area	62	760.10371	490.80412	47126	22.83000	2680

Pearson Correlation Coefficients, N = 62 Prob >  r  under H0: Rho=0				
	sqrt_fatality	Diabetes_prev	land_area	
sqrt_fatality	1.00000	-0.26691 0.0360	-0.31973 0.0113	
Diabetes_prev	-0.26691 0.0360	1.00000	0.05715 0.6590	
land_area	-0.31973 0.0113	0.05715 0.6590	1.00000	

## The CORR Procedure



**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: sqrt\_fatality**

Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	12	0.19209	0.01601	1.85	0.0661
Error	49	0.42475	0.00867		
Corrected Total	61	0.61684			

Root MSE	0.09310	R-Square	0.3114
Dependent Mean	0.15931	Adj R-Sq	0.1428
Coeff Var	58.44188		

Parameter Estimates						
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t	Variance Inflation
Intercept	1	1.27617	1.65546	0.77	0.4445	0
log_black	1	0.00896	0.05311	0.17	0.8666	3.31209
log_education	1	-0.30203	0.25877	-1.17	0.2488	8.02075
log_income	1	-0.25750	0.33180	-0.78	0.4414	3.53917
Unemployment	1	-3.00480	3.25545	-0.92	0.3605	3.60840
log_older_adults	1	0.03070	0.11295	0.27	0.7869	25.13304
log_uninsured	1	-0.13509	0.10647	-1.27	0.2105	2.35063
log_ranking	1	-0.01216	0.09704	-0.13	0.9008	3.20447
log_hospital1	1	0.01573	0.09182	0.17	0.8647	5.48398
log_food1	1	-0.01288	0.14083	-0.09	0.9275	38.88227
log_food2	1	0.05262	0.08317	0.63	0.5298	30.84138
Diabetes_prev	1	-2.00644	1.23437	-1.63	0.1105	2.86823
land_area	1	-0.00000186	0.00006388	-0.03	0.9769	6.91647

**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: sqrt\_fatality**

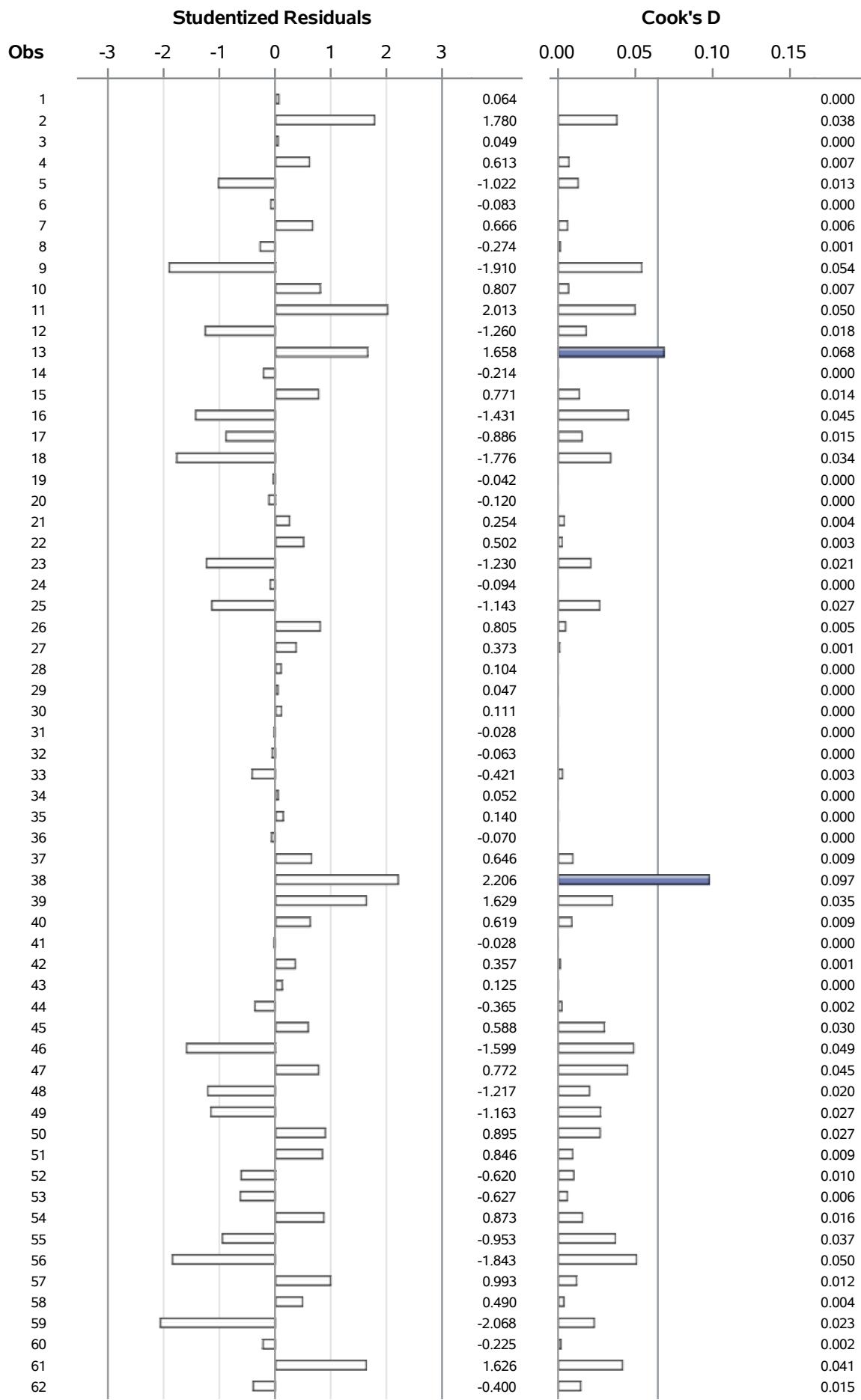
Output Statistics							
Obs	Dependent Variable	Predicted Value	Std Error Mean Predict	Residual	Std Error Residual	Student Residual	Cook's D
1	0.2192	0.2137	0.0383	0.005464	0.0849	0.064	0.000
2	0.2582	0.1040	0.0341	0.1542	0.0866	1.780	0.038
3	0.2633	0.2600	0.0648	0.003297	0.0668	0.049	0.000
4	0.2242	0.1729	0.0409	0.0512	0.0837	0.613	0.007
5	0.0000	0.0885	0.0343	-0.0885	0.0865	-1.022	0.013
6	0.1667	0.1742	0.0229	-0.007494	0.0902	-0.083	0.000
7	0.2000	0.1427	0.0356	0.0573	0.0860	0.666	0.006
8	0.1655	0.1888	0.0379	-0.0233	0.0850	-0.274	0.001
9	0.0000	0.1629	0.0374	-0.1629	0.0853	-1.910	0.054
10	0.2425	0.1720	0.0320	0.0706	0.0875	0.807	0.007
11	0.3676	0.1935	0.0345	0.1741	0.0865	2.013	0.050
12	0.0000	0.1096	0.0334	-0.1096	0.0869	-1.260	0.018
13	0.2857	0.1515	0.0460	0.1342	0.0810	1.658	0.068
14	0.1494	0.1683	0.0303	-0.0189	0.0880	-0.214	0.000
15	0.2631	0.2001	0.0446	0.0630	0.0817	0.771	0.014
16	0.0000	0.1174	0.0440	-0.1174	0.0821	-1.431	0.045
17	0.0000	0.0736	0.0420	-0.0736	0.0831	-0.886	0.015
18	0.0000	0.1549	0.0326	-0.1549	0.0872	-1.776	0.034
19	0.1296	0.1334	0.0274	-0.003778	0.0890	-0.042	0.000
20	0.1525	0.1626	0.0399	-0.0101	0.0841	-0.120	0.000
21	0.0000	-0.0178	0.0612	0.0178	0.0701	0.254	0.004
22	0.1429	0.0989	0.0317	0.0439	0.0875	0.502	0.003
23	0.0000	0.1055	0.0363	-0.1055	0.0858	-1.230	0.021
24	0.2703	0.2780	0.0443	-0.007682	0.0819	-0.094	0.000
25	0.0000	0.0946	0.0426	-0.0946	0.0828	-1.143	0.027
26	0.2265	0.1548	0.0273	0.0716	0.0890	0.805	0.005
27	0.1682	0.1349	0.0257	0.0334	0.0895	0.373	0.001
28	0.2406	0.2321	0.0445	0.008500	0.0818	0.104	0.000
29	0.1690	0.1650	0.0382	0.004020	0.0849	0.047	0.000
30	0.2267	0.2178	0.0471	0.008936	0.0803	0.111	0.000
31	0.2533	0.2552	0.0655	-0.001844	0.0662	-0.028	0.000
32	0.1879	0.1929	0.0471	-0.005081	0.0803	-0.063	0.000
33	0.1197	0.1555	0.0382	-0.0357	0.0849	-0.421	0.003

**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: sqrt\_fatality**

Output Statistics							
Obs	Dependent Variable	Predicted Value	Std Error Mean Predict	Residual	Std Error Residual	Student Residual	Cook's D
34	0.2079	0.2033	0.0312	0.004600	0.0877	0.052	0.000
35	0.1678	0.1560	0.0390	0.0118	0.0845	0.140	0.000
36	0.1595	0.1652	0.0465	-0.005632	0.0807	-0.070	0.000
37	0.1474	0.0946	0.0444	0.0528	0.0818	0.646	0.009
38	0.3227	0.1398	0.0423	0.1829	0.0829	2.206	0.097
39	0.2857	0.1455	0.0355	0.1402	0.0861	1.629	0.035
40	0.2417	0.1910	0.0444	0.0507	0.0818	0.619	0.009
41	0.2545	0.2568	0.0455	-0.002308	0.0812	-0.028	0.000
42	0.2377	0.2063	0.0307	0.0314	0.0879	0.357	0.001
43	0.2126	0.2027	0.0497	0.009868	0.0787	0.125	0.000
44	0.1708	0.2014	0.0405	-0.0306	0.0838	-0.365	0.002
45	0.0953	0.0577	0.0677	0.0376	0.0640	0.588	0.030
46	0.0627	0.1960	0.0414	-0.1333	0.0834	-1.599	0.049
47	0.2470	0.1959	0.0654	0.0511	0.0662	0.772	0.045
48	0.0000	0.1044	0.0361	-0.1044	0.0858	-1.217	0.020
49	0.0000	0.0963	0.0425	-0.0963	0.0829	-1.163	0.027
50	0.2357	0.1662	0.0514	0.0695	0.0777	0.895	0.027
51	0.2047	0.1319	0.0355	0.0728	0.0861	0.846	0.009
52	0.1748	0.2248	0.0465	-0.0500	0.0806	-0.620	0.010
53	0.1213	0.1748	0.0371	-0.0536	0.0854	-0.627	0.006
54	0.1644	0.0922	0.0428	0.0722	0.0827	0.873	0.016
55	0.1296	0.2015	0.0546	-0.0719	0.0754	-0.953	0.037
56	0.0478	0.2049	0.0374	-0.1572	0.0853	-1.843	0.050
57	0.2437	0.1578	0.0343	0.0859	0.0866	0.993	0.012
58	0.1754	0.1337	0.0376	0.0417	0.0852	0.490	0.004
59	0.0000	0.1861	0.0239	-0.1861	0.0900	-2.068	0.023
60	0.1849	0.2024	0.0512	-0.0175	0.0778	-0.225	0.002
61	0.2887	0.1507	0.0382	0.1380	0.0849	1.626	0.041
62	0.0000	0.0252	0.0685	-0.0252	0.0630	-0.400	0.015

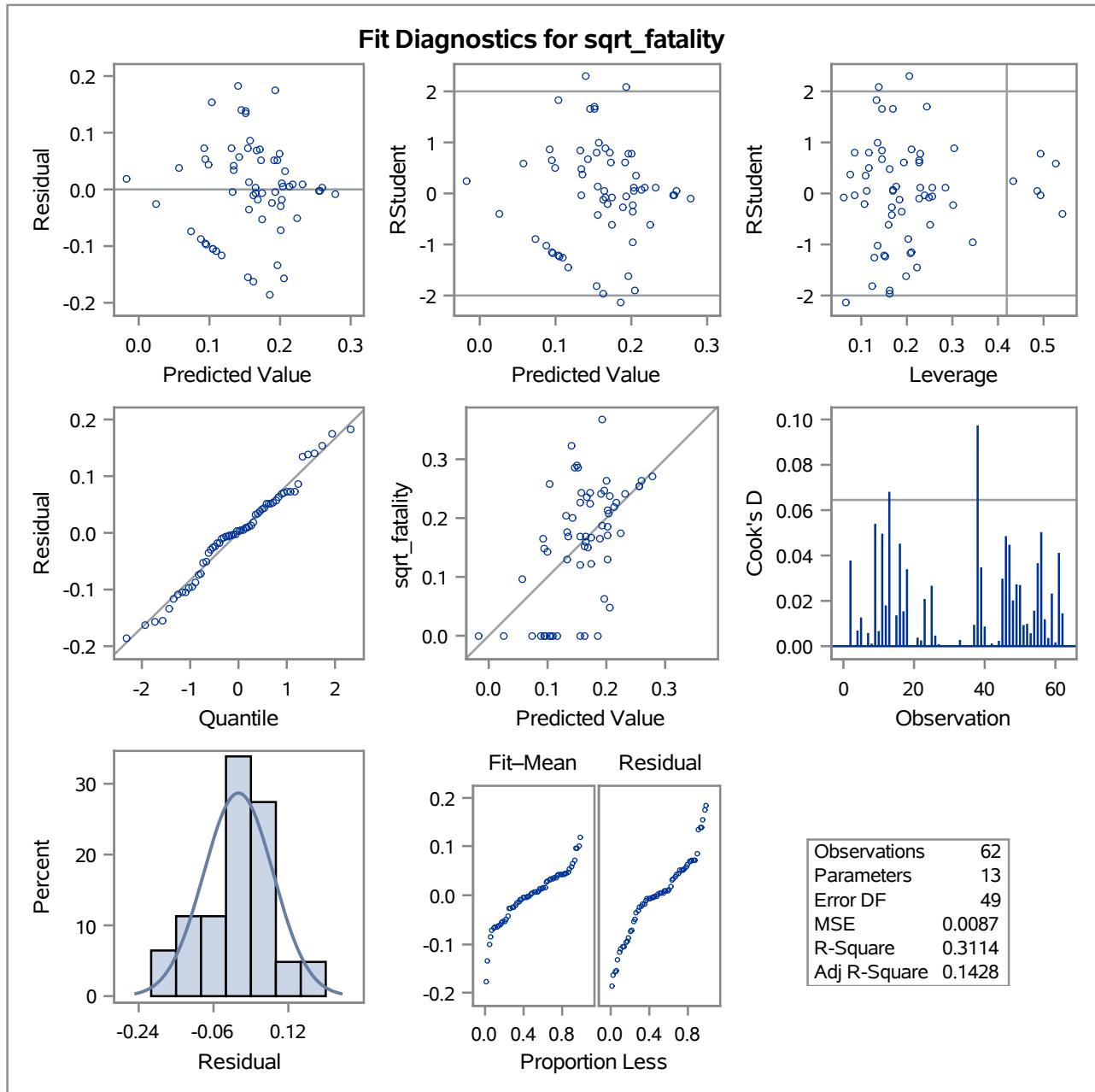
**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: sqrt\_fatality**

### Studentized Residuals and Cook's D for sqrt\_fatality

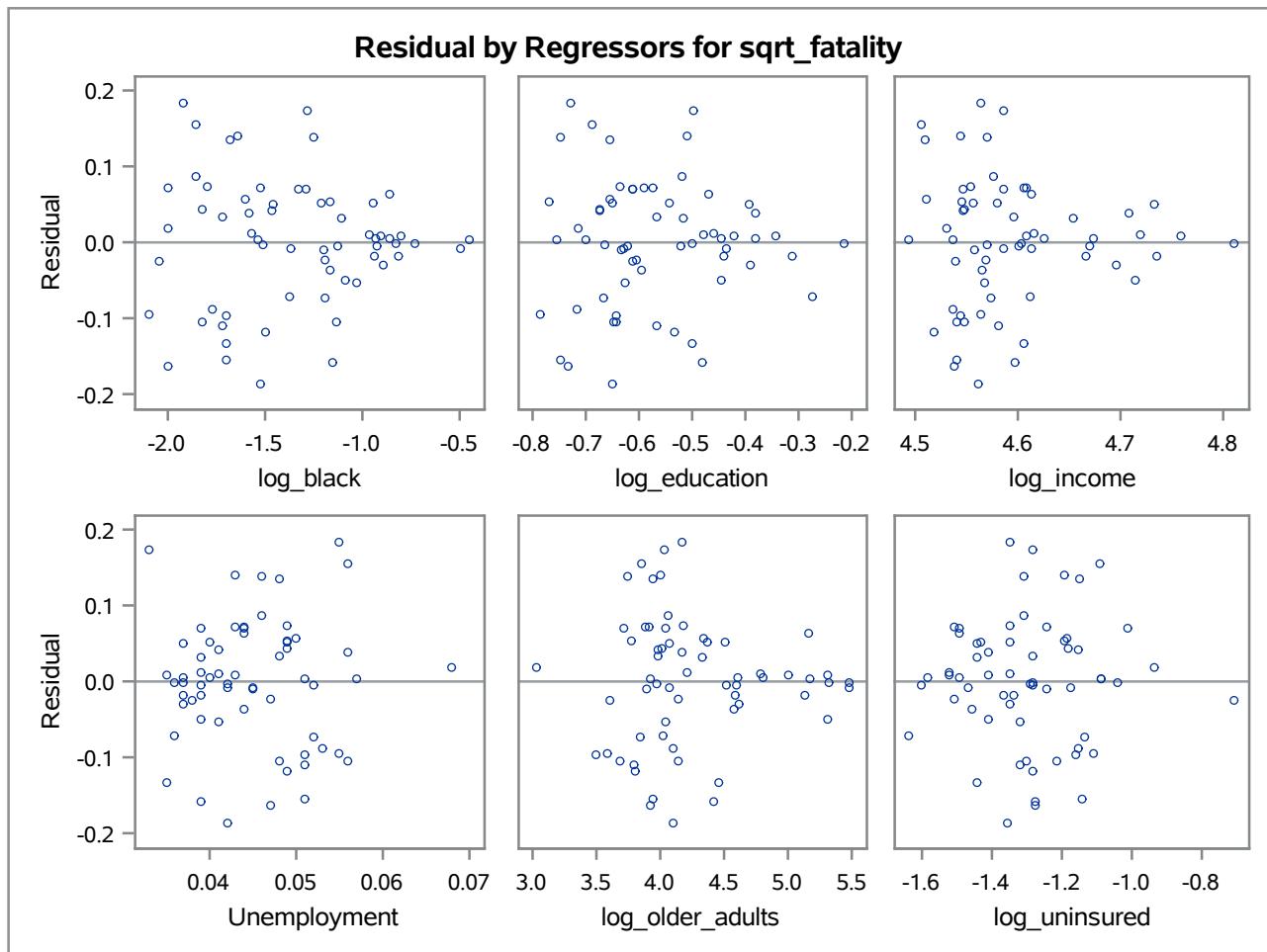


**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: sqrt\_fatality**

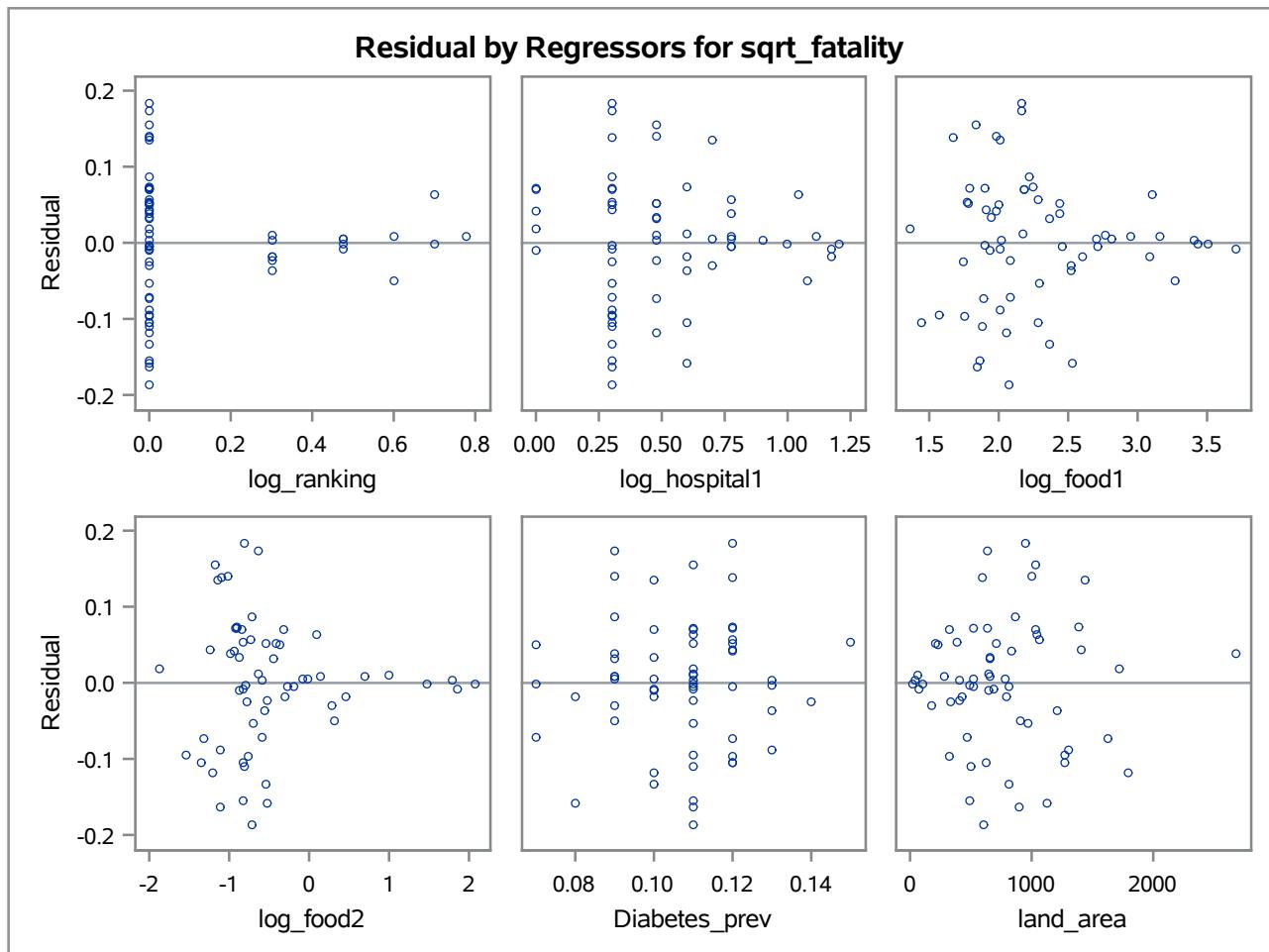
Sum of Residuals	0
Sum of Squared Residuals	0.42475
Predicted Residual SS (PRESS)	0.62744



The REG Procedure  
Model: MODEL1



The REG Procedure  
Model: MODEL1



### The SURVEYSELECT Procedure

Selection Method	Simple Random Sampling
<b>Input Data Set</b>	COVID_STD2
<b>Random Number Seed</b>	123
<b>Sampling Rate</b>	0.7
<b>Sample Size</b>	44
<b>Selection Probability</b>	0.709677
<b>Sampling Weight</b>	0
<b>Output Data Set</b>	TRAIINTEST2

### The GLMSELECT Procedure

<b>Data Set</b>	WORK.TRAINTEST2
<b>Dependent Variable</b>	sqrt_fatality
<b>Selection Method</b>	LAR
<b>Stop Criterion</b>	None
<b>Choose Criterion</b>	Cross Validation
<b>Cross Validation Method</b>	Random
<b>Cross Validation Fold</b>	10
<b>Effect Hierarchy Enforced</b>	None
<b>Random Number Seed</b>	123

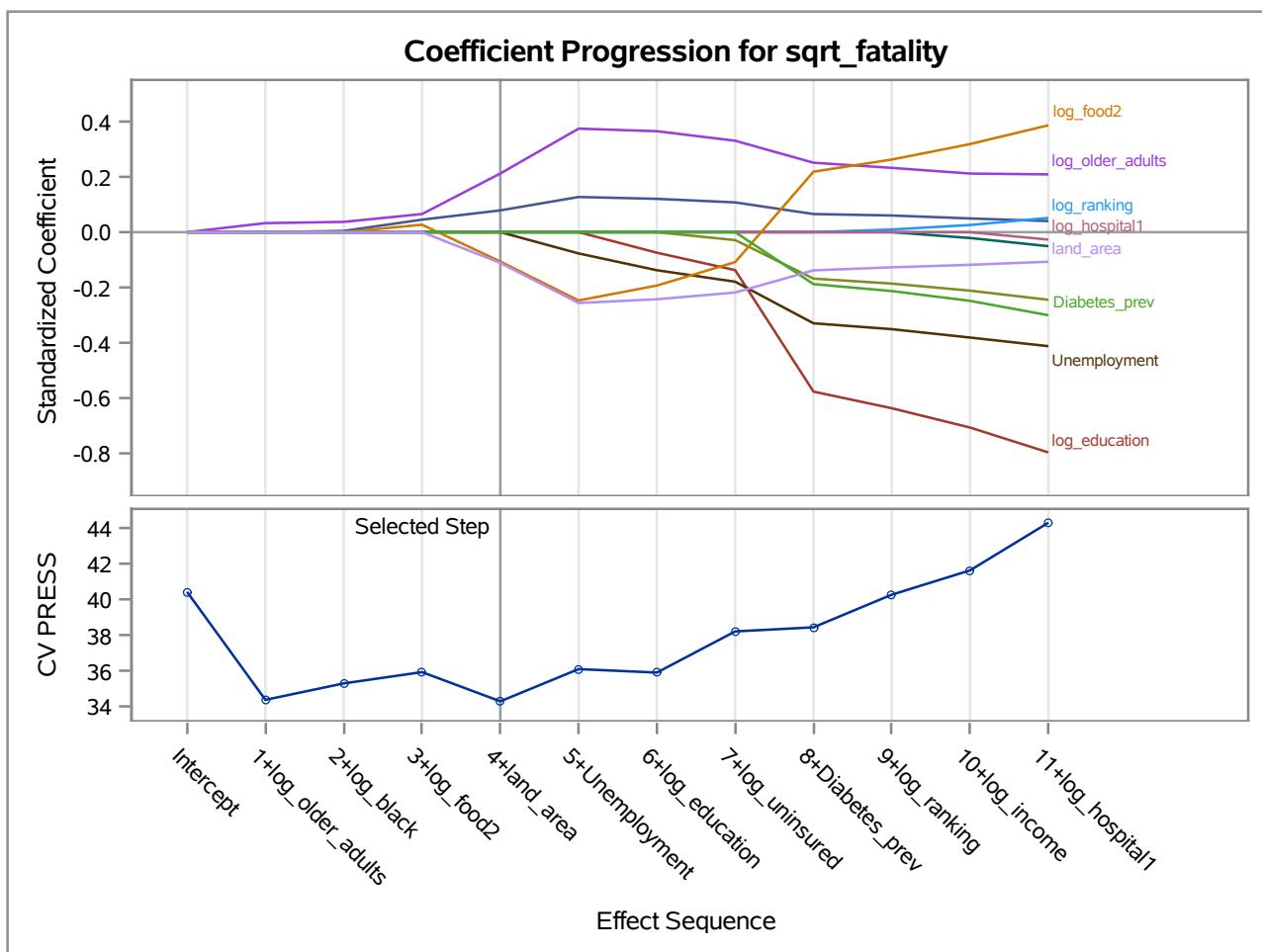
<b>Number of Observations Read</b>	62
<b>Number of Observations Used</b>	62
<b>Number of Observations Used for Training</b>	44
<b>Number of Observations Used for Testing</b>	18

<b>Dimensions</b>	
<b>Number of Effects</b>	12
<b>Number of Parameters</b>	12

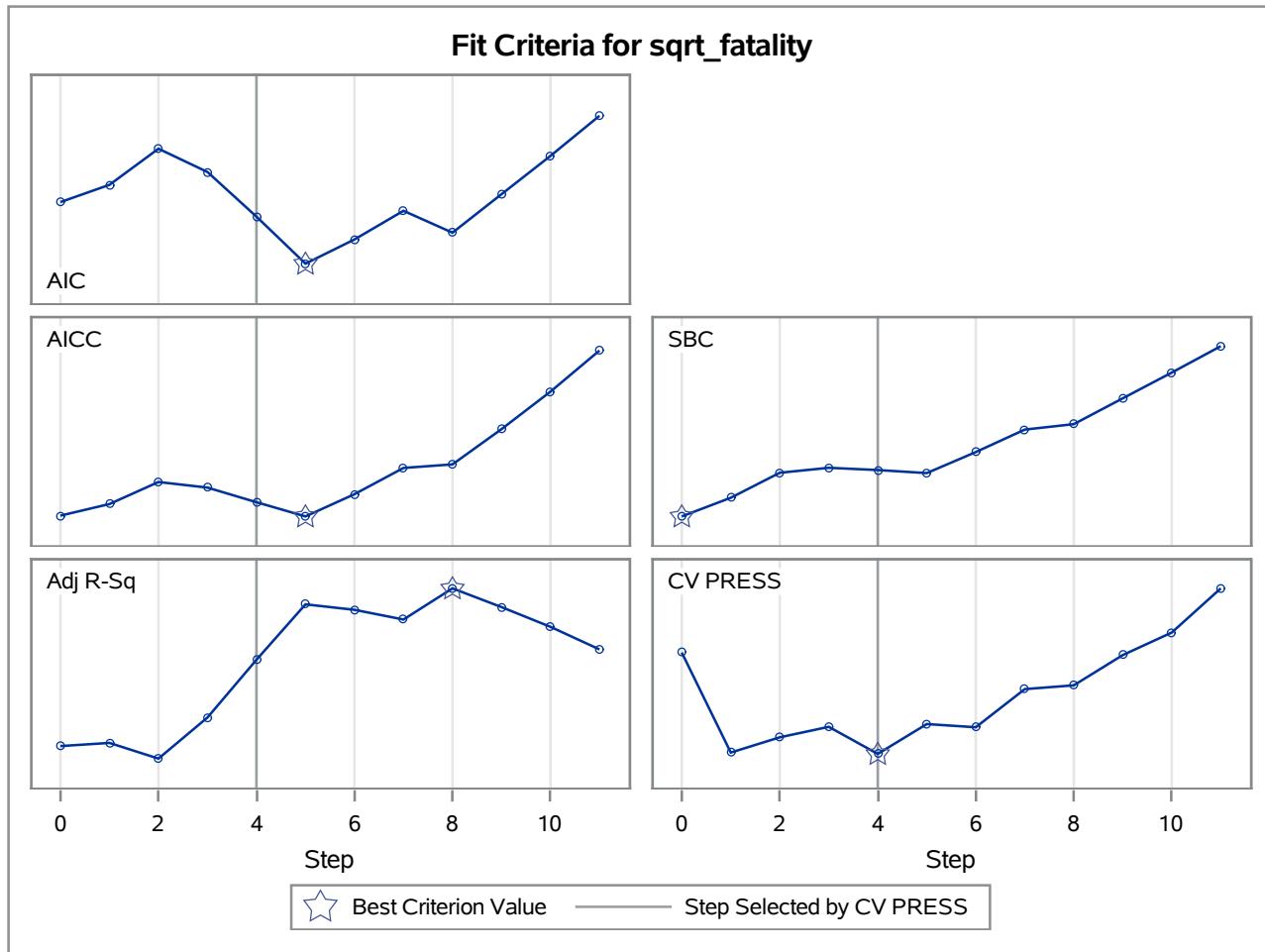
## The GLMSELECT Procedure

LAR Selection Summary					
Step	Effect Entered	Number Effects In	ASE	Test ASE	CV PRESS
0	Intercept	1	0.9005	1.2273	40.4135
1	log_older_adults	2	0.8765	1.1916	34.3662
2	log_black	3	0.8705	1.1824	35.2882
3	log_food2	4	0.8114	1.0934	35.9214
4	land_area	5	0.7392	0.9744	34.2840*
5	Unemployment	6	0.6718	0.9648	36.0895
6	log_education	7	0.6588	1.0099	35.8960
7	log_uninsured	8	0.6490	1.0263	38.2028
8	Diabetes_prev	9	0.6059	1.0919	38.4314
9	log_ranking	10	0.6032	1.1129	40.2615
10	log_income	11	0.6005	1.1463	41.6249
11	log_hospital1	12	0.5989	1.2028	44.2948

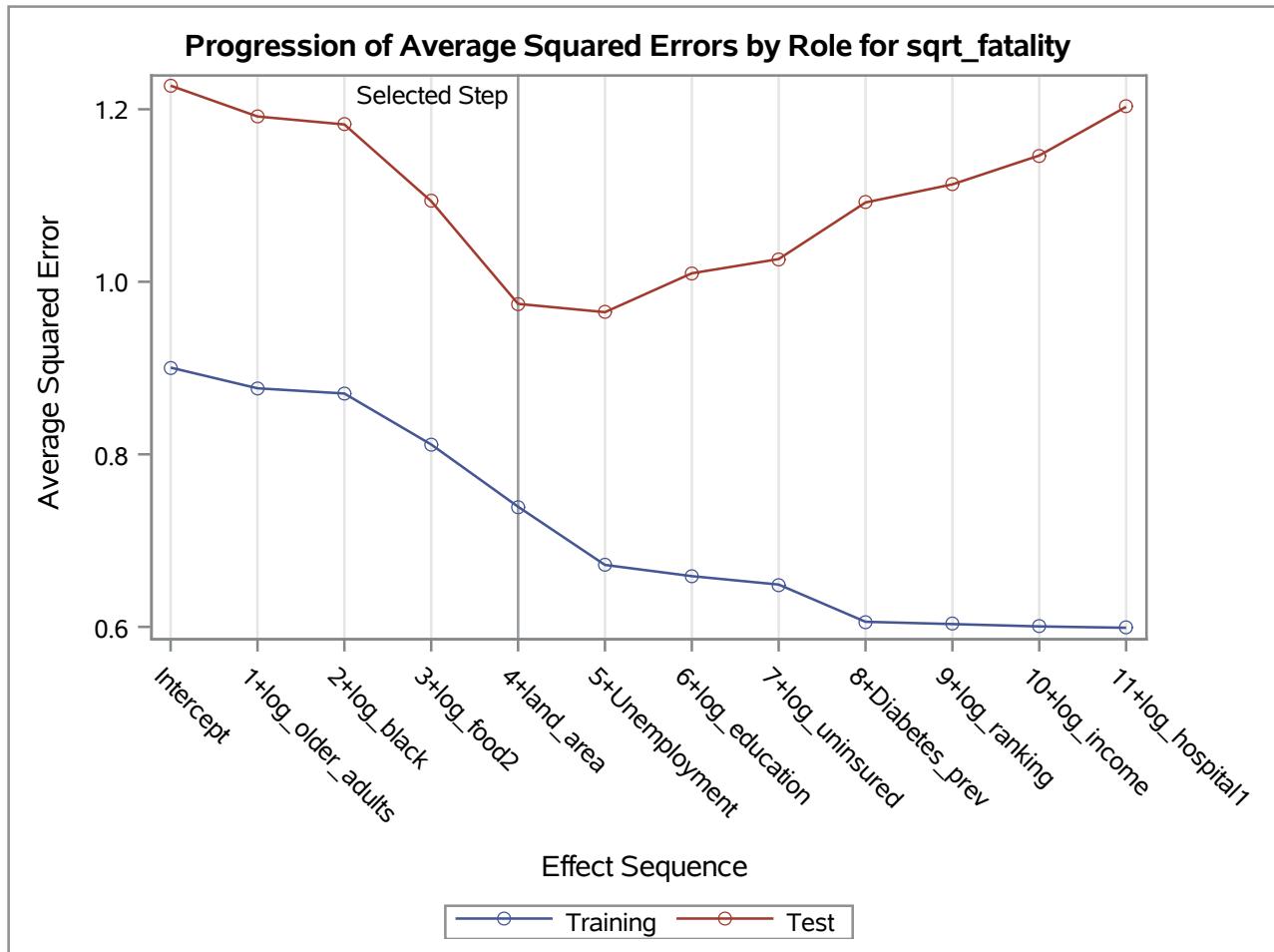
Selection stopped because all effects are in the final model.



## The GLMSELECT Procedure



## The GLMSELECT Procedure



## The GLMSELECT Procedure Selected Model

The selected model, based on Cross Validation, is the model at Step 4.

<b>Effects:</b>	Intercept log_black log_older_adults log_food2 land_area
-----------------	--

Analysis of Variance				
Source	DF	Sum of Squares	Mean Square	F Value
<b>Model</b>	4	7.09686	1.77422	2.13
<b>Error</b>	39	32.52680	0.83402	
<b>Corrected Total</b>	43	39.62366		

<b>Root MSE</b>	0.91325
<b>Dependent Mean</b>	0.10744
<b>R-Square</b>	0.1791
<b>Adj R-Sq</b>	0.0949
<b>AIC</b>	42.70649
<b>AICC</b>	44.97676
<b>SBC</b>	5.62744
<b>ASE (Train)</b>	0.73925
<b>ASE (Test)</b>	0.97440
<b>CV PRESS</b>	34.28403

**The GLMSELECT Procedure**  
**Selected Model**

Parameter Estimates		
Parameter	DF	Estimate
Intercept	1	0.050888
log_black	1	0.079037
log_older_adults	1	0.201704
log_food2	1	-0.095051
land_area	1	-0.130420

### The GLMSELECT Procedure

<b>Data Set</b>	WORK.COVID_STD2
<b>Dependent Variable</b>	sqrt_fatality
<b>Selection Method</b>	LASSO
<b>Stop Criterion</b>	None
<b>Choose Criterion</b>	BIC
<b>Effect Hierarchy Enforced</b>	None

<b>Number of Observations Read</b>	62
<b>Number of Observations Used</b>	62

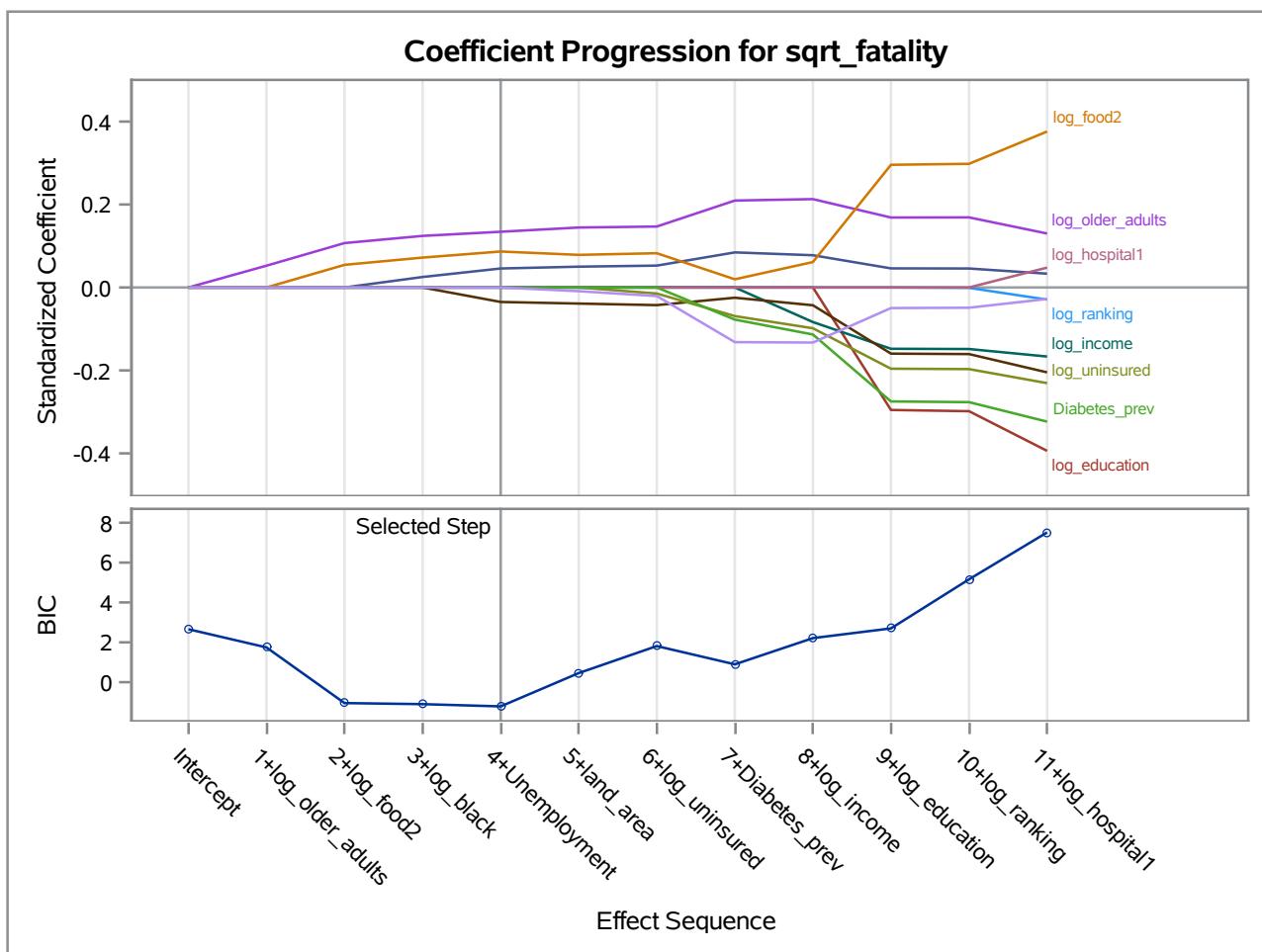
Dimensions	
<b>Number of Effects</b>	12
<b>Number of Parameters</b>	12

### The GLMSELECT Procedure

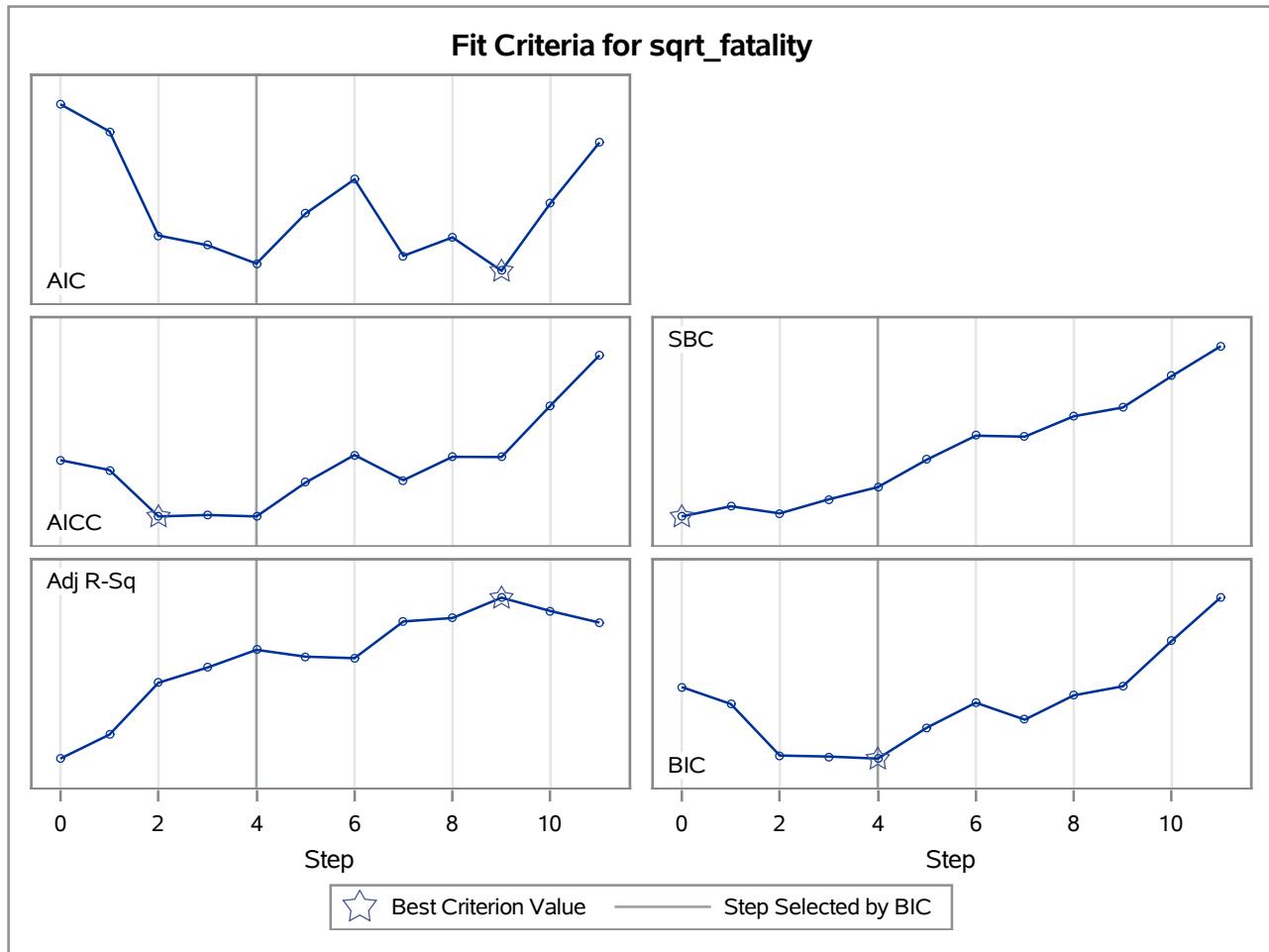
LASSO Selection Summary				
Step	Effect Entered	Effect Removed	Number Effects In	BIC
0	Intercept		1	2.6572
1	log_older_adults		2	1.7441
2	log_food2		3	-1.0491
3	log_black		4	-1.1026
4	Unemployment		5	-1.2147*
5	land_area		6	0.4566
6	log_uninsured		7	1.8110
7	Diabetes_prev		8	0.8957
8	log_income		9	2.2117
9	log_education		10	2.6983
10	log_ranking		11	5.1610
11	log_hospital1		12	7.5141

\* Optimal Value of Criterion

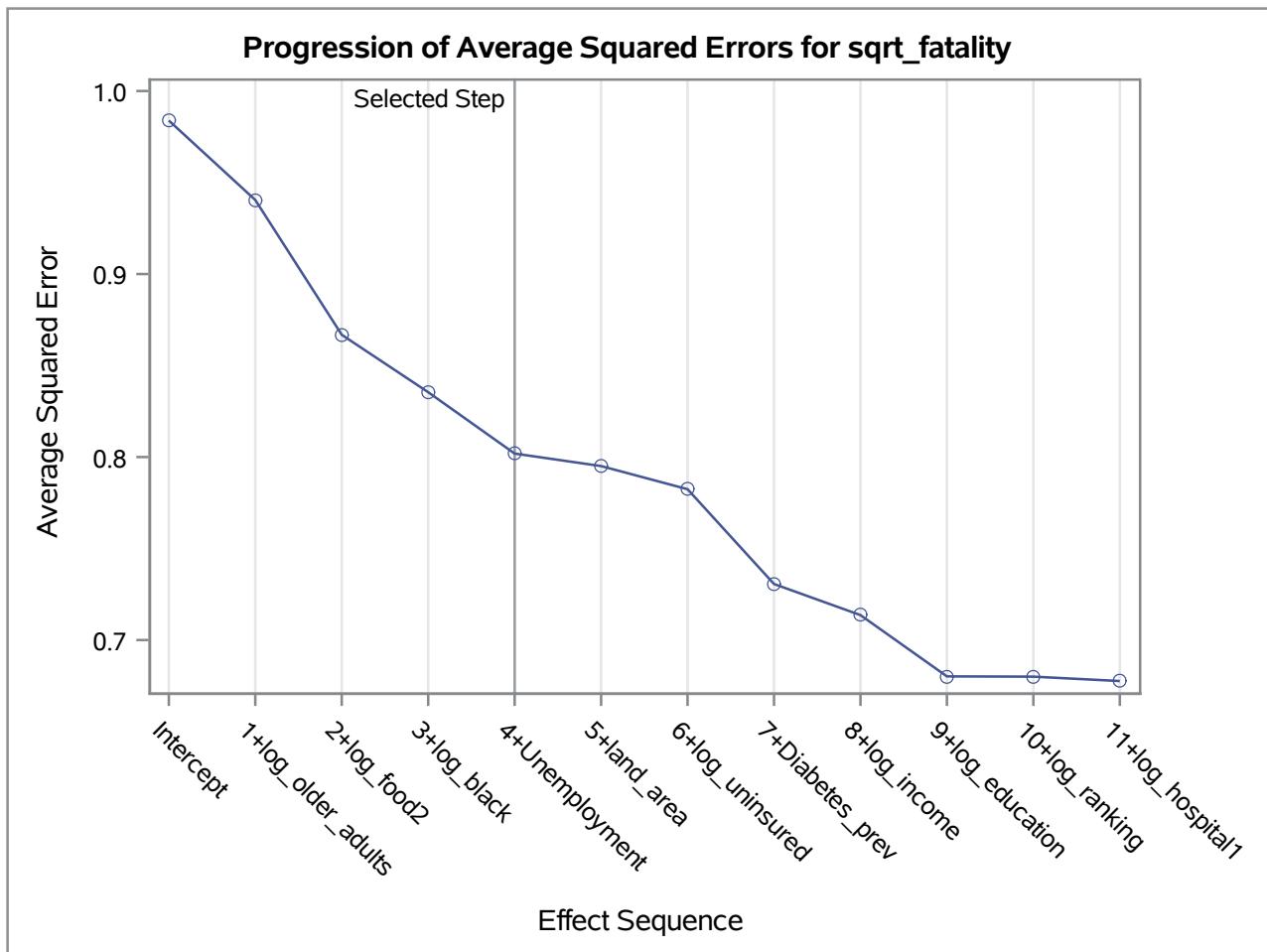
Selection stopped because all effects are in the final model.



## The GLMSELECT Procedure



## The GLMSELECT Procedure



## The GLMSELECT Procedure Selected Model

The selected model, based on BIC, is the model at Step 4.

Effects:	Intercept log_black Unemployment log_older_adults log_food2
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<b>Analysis of Variance</b>				
Source	DF	Sum of Squares	Mean Square	F Value
<b>Model</b>	4	11.28238	2.82059	3.23
<b>Error</b>	57	49.71762	0.87224	
<b>Corrected Total</b>	61	61.00000		

Root MSE	0.93394
Dependent Mean	3.58136E-16
R-Square	0.1850
Adj R-Sq	0.1278
AIC	60.31195
AICC	61.83923
BIC	-1.21473
C(p)	7.17225
SBC	6.94762

<b>Parameter Estimates</b>		
Parameter	DF	Estimate
Intercept	1	3.762508E-16
log_black	1	0.045708
Unemployment	1	-0.034962
log_older_adults	1	0.134308
log_food2	1	0.086666

**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: sqrt\_fatality**

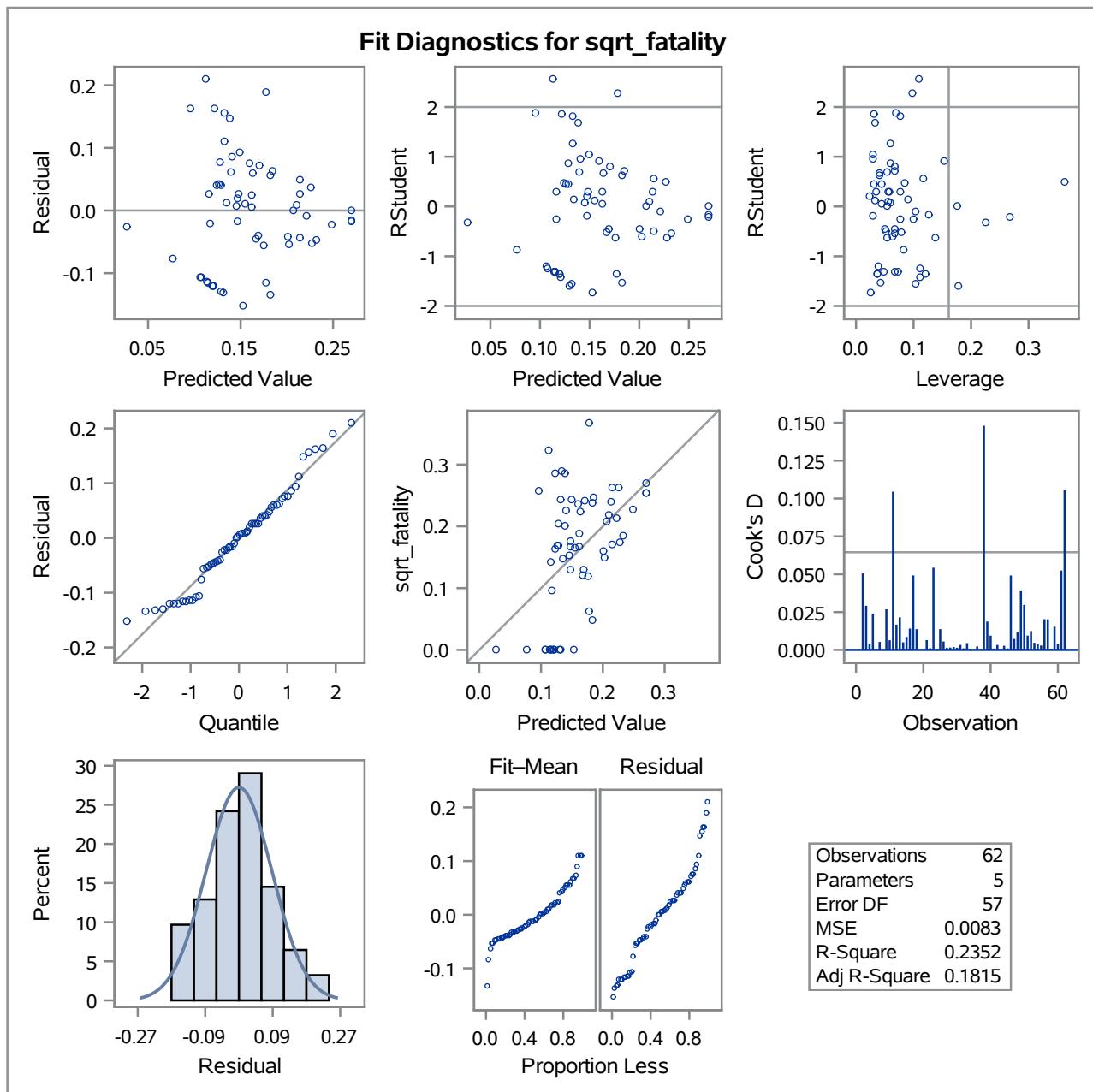
Number of Observations Read	62
Number of Observations Used	62

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
<b>Model</b>	4	0.14509	0.03627	4.38	0.0037
<b>Error</b>	57	0.47175	0.00828		
<b>Corrected Total</b>	61	0.61684			

Root MSE	0.09097	R-Square	0.2352
Dependent Mean	0.15931	Adj R-Sq	0.1815
Coeff Var	57.10507		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
<b>Intercept</b>	1	0.16953	0.26400	0.64	0.5233
<b>log_black</b>	1	0.02833	0.04807	0.59	0.5579
<b>Unemployment</b>	1	-2.21649	1.89789	-1.17	0.2477
<b>log_older_adults</b>	1	0.03198	0.04882	0.66	0.5151
<b>log_food2</b>	1	0.01724	0.03222	0.53	0.5948

**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: sqrt\_fatality**



The REG Procedure  
Model: MODEL1  
Dependent Variable: sqrt\_fatality



**The UNIVARIATE Procedure**  
**Variable: resid (Residual)**

Moments			
<b>N</b>	62	<b>Sum Weights</b>	62
<b>Mean</b>	0	<b>Sum Observations</b>	0
<b>Std Deviation</b>	0.087941	<b>Variance</b>	0.00773362
<b>Skewness</b>	0.29125437	<b>Kurtosis</b>	-0.3506154
<b>Uncorrected SS</b>	0.47175081	<b>Corrected SS</b>	0.47175081
<b>Coeff Variation</b>	.	<b>Std Error Mean</b>	0.01116852

Basic Statistical Measures			
Location		Variability	
<b>Mean</b>	0.000000	<b>Std Deviation</b>	0.08794
<b>Median</b>	0.003350	<b>Variance</b>	0.00773
<b>Mode</b>	.	<b>Range</b>	0.36253
		<b>Interquartile Range</b>	0.10864

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	0	Pr >  t	1.0000
Sign	M	2	Pr >=  M	0.7035
Signed Rank	S	-11.5	Pr >=  S	0.9365

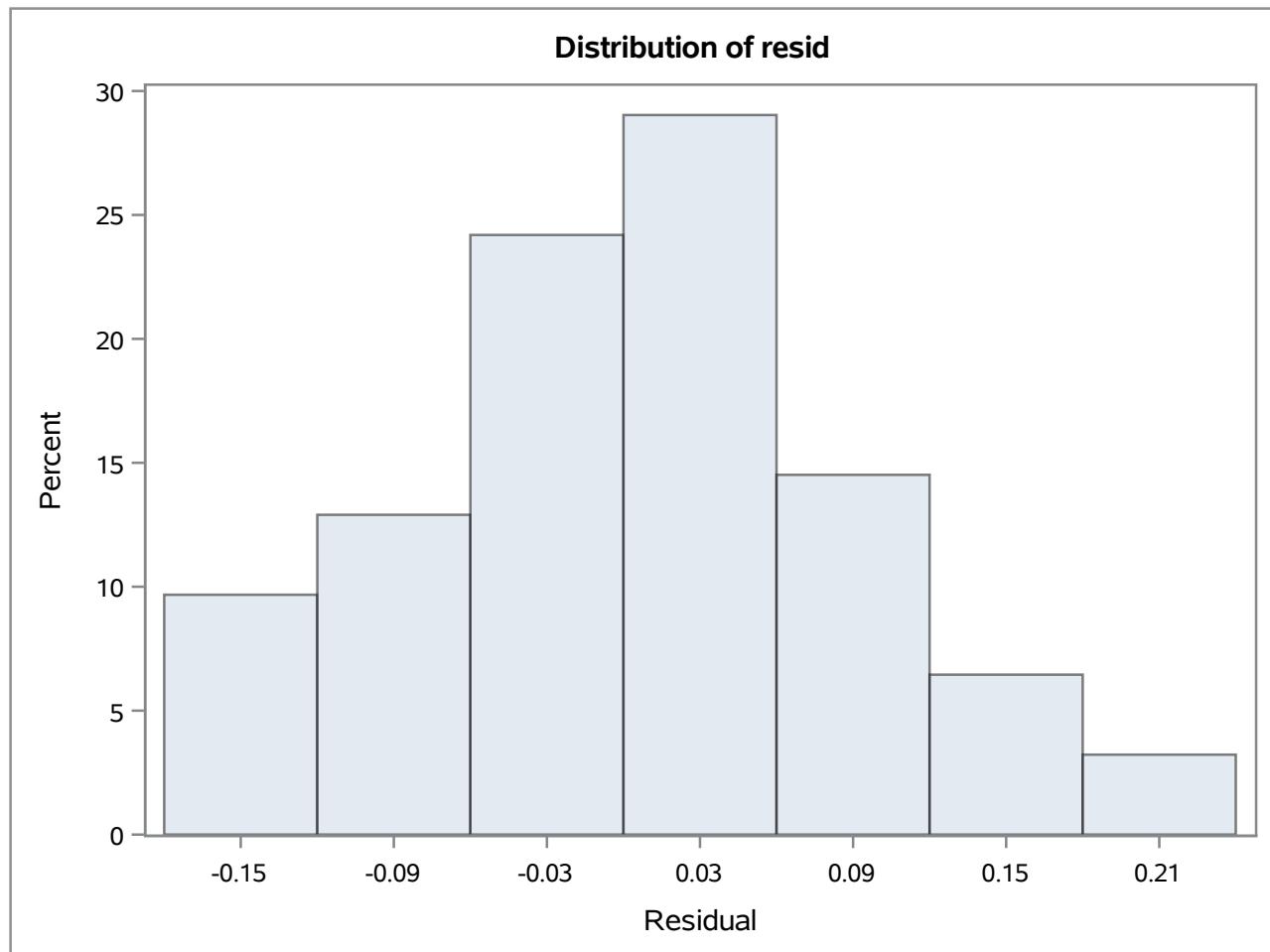
Tests for Normality				
Test	Statistic		p Value	
Shapiro-Wilk	W	0.96779	Pr < W	0.1027
Kolmogorov-Smirnov	D	0.096153	Pr > D	>0.1500
Cramer-von Mises	W-Sq	0.048926	Pr > W-Sq	>0.2500
Anderson-Darling	A-Sq	0.496686	Pr > A-Sq	0.2138

Quantiles (Definition 5)	
Level	Quantile
<b>100% Max</b>	0.21017000
<b>99%</b>	0.21017000
<b>95%</b>	0.16227590
<b>90%</b>	0.11114624
<b>75% Q3</b>	0.05543182
<b>50% Median</b>	0.00334997
<b>25% Q1</b>	-0.05321009

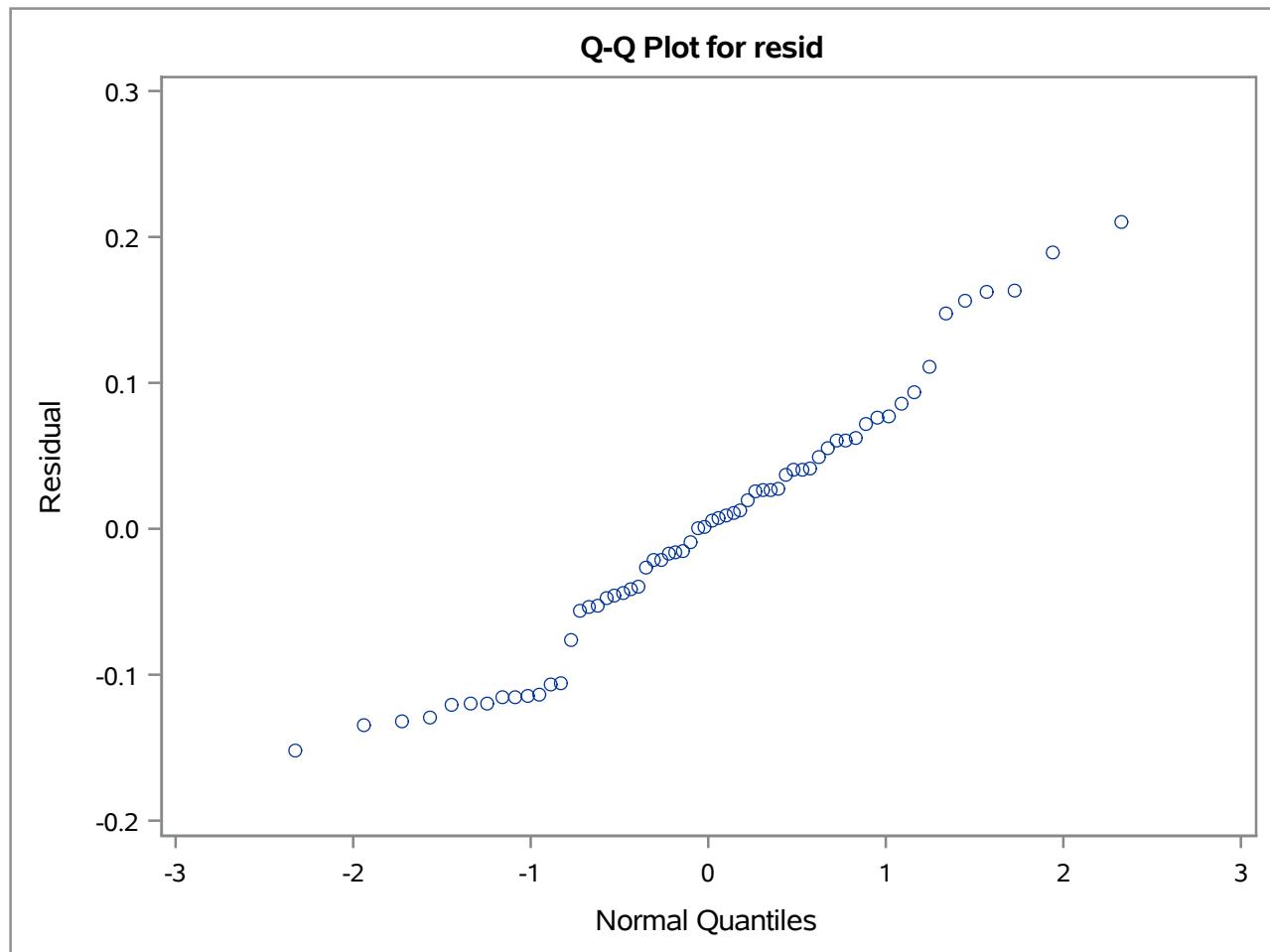
The UNIVARIATE Procedure  
Variable: resid (Residual)

Quantiles (Definition 5)	
Level	Quantile
10%	-0.11963106
5%	-0.12928811
1%	-0.15235673
0% Min	-0.15235673

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
-0.152357	59	0.155866	61
-0.134870	56	0.162276	2
-0.131553	23	0.163643	13
-0.129288	62	0.189698	11
-0.120454	17	0.210170	38

**The UNIVARIATE Procedure**

## The UNIVARIATE Procedure



### The GENMOD Procedure

Model Information	
Data Set	WORK.COVID3
Distribution	Gamma
Link Function	Log
Dependent Variable	fatality_rate

Number of Observations Read	62
Number of Observations Used	49
Number of Invalid Responses	13

Criteria For Assessing Goodness Of Fit			
Criterion	DF	Value	Value/DF
Deviance	34	16.1320	0.4745
Scaled Deviance	34	51.5325	1.5157
Pearson Chi-Square	34	11.7749	0.3463
Scaled Pearson X2	34	37.6141	1.1063
Log Likelihood		119.4102	
Full Log Likelihood		119.4102	
AIC (smaller is better)		-206.8204	
AICC (smaller is better)		-189.8204	
BIC (smaller is better)		-176.5513	

Algorithm converged.

Analysis Of Maximum Likelihood Parameter Estimates							
Parameter	DF	Estimate	Standard Error	Wald 95% Confidence Limits		Wald Chi-Square	Pr > ChiSq
Intercept	1	1.5435	9.3894	-16.8594	19.9465	0.03	0.8694
log_black	1	-0.4681	0.4292	-1.3093	0.3731	1.19	0.2754
log_education	1	-4.7125	1.8421	-8.3229	-1.1021	6.54	0.0105
Poverty	1	2.7826	3.2144	-3.5175	9.0826	0.75	0.3867
Unemployment	1	-17.7367	26.1360	-68.9624	33.4889	0.46	0.4974
log_older_adults	1	-0.0366	0.8126	-1.6293	1.5561	0.00	0.9641
log_ranking	1	0.9898	0.7143	-0.4102	2.3898	1.92	0.1658
log_hospital1	1	0.7198	0.6605	-0.5747	2.0143	1.19	0.2758
log_hospital2	1	-1.7018	4.9787	-11.4599	8.0562	0.12	0.7325
log_food1	1	-0.3650	0.9887	-2.3028	1.5727	0.14	0.7119
log_food2	1	0.2875	0.6682	-1.0222	1.5972	0.19	0.6670

## The GENMOD Procedure

Analysis Of Maximum Likelihood Parameter Estimates							
Parameter	DF	Estimate	Standard Error	Wald 95% Confidence Limits		Wald Chi-Square	Pr > ChiSq
Diabetes_prev	1	-27.9593	10.9239	-49.3697	-6.5490	6.55	0.0105
Hypertension_prev	1	-0.8484	3.2372	-7.1932	5.4964	0.07	0.7933
land_area	1	-0.0003	0.0005	-0.0013	0.0006	0.48	0.4902
life_exp	1	-0.0428	0.1029	-0.2445	0.1588	0.17	0.6772
Scale	1	3.1944	0.6147	2.1908	4.6578		

Note: The scale parameter was estimated by maximum likelihood.

LR Statistics For Type 1 Analysis					
Source	2*LogLikelihood	DF	Chi-Square	Pr > ChiSq	
Intercept	223.9362				
log_black	224.1055	1	0.17	0.6808	
log_education	224.5155	1	0.41	0.5220	
Poverty	225.9598	1	1.44	0.2294	
Unemployment	226.5212	1	0.56	0.4537	
log_older_adults	227.1451	1	0.62	0.4296	
log_ranking	228.5105	1	1.37	0.2426	
log_hospital1	228.9630	1	0.45	0.5012	
log_hospital2	229.3650	1	0.40	0.5260	
log_food1	229.4423	1	0.08	0.7811	
log_food2	231.5507	1	2.11	0.1465	
Diabetes_prev	238.1343	1	6.58	0.0103	
Hypertension_prev	238.1674	1	0.03	0.8557	
land_area	238.6475	1	0.48	0.4884	
life_exp	238.8204	1	0.17	0.6775	