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### **The SAS System**

Number of Observations Read	807
Number of Observations Used	807

Analysis of Variance							
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F		
Model	6	8003.02492	1333.83749	7.42	<.0001		
Error	800	143751	179.68832				
<b>Corrected Total</b>	806	151754					

Root MSE	13.40479	R-Square	0.0527
Dependent Mean	8.68649	Adj R-Sq	0.0456
Coeff Var	154.31759		

	Parameter Estimates										
					Heteroscedasticity Consistent						
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t	Standard Error	t Value	Pr >  t			
Intercept	1	-3.63982	24.07866	-0.15	0.8799	25.50512	-0.14	0.8866			
lincome	1	0.88027	0.72778	1.21	0.2268	0.59342	1.48	0.1384			
lcigpric	1	-0.75086	5.77334	-0.13	0.8966	6.00917	-0.12	0.9006			
educ	1	-0.50150	0.16708	-3.00	0.0028	0.16169	-3.10	0.0020			
age	1	0.77069	0.16012	4.81	<.0001	0.13768	5.60	<.0001			
age2	1	-0.00902	0.00174	-5.18	<.0001	0.00146	-6.20	<.0001			
restauran	1	-2.82508	1.11179	-2.54	0.0112	1.00365	-2.81	0.0050			

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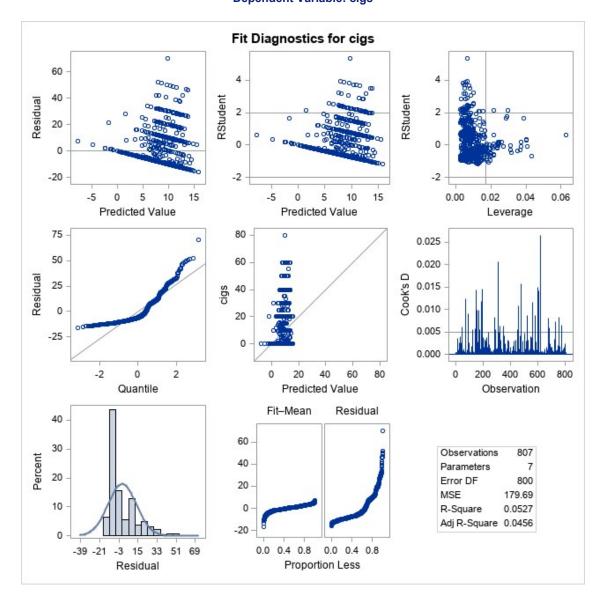
# The SAS System

	Heteroscedasticity Consistent Covariance of Estimates									
Variable	Intercept	lincome	lcigpric	educ	age	age2	restauran			
Intercept	650.51103308	-2.642467179	-149.8136691	-0.240228531	-0.489137676	0.0051075375	3.8226853285			
lincome	-2.642467179	0.3521482505	0.008733758	-0.029254378	-0.018750239	0.0001923733	-0.076836362			
lcigpric	-149.8136691	0.008733758	36.110106952	0.0481489854	0.0775258566	-0.000858127	-0.783483342			
educ	-0.240228531	-0.029254378	0.0481489854	0.0261429028	-0.000808723	0.0000170051	-0.012436503			
age	-0.489137676	-0.018750239	0.0775258566	-0.000808723	0.0189566233	-0.000197847	-0.002485327			
age2	0.0051075375	0.0001923733	-0.000858127	0.0000170051	-0.000197847	2.1194381E-6	0.0000260324			
restauran	3.8226853285	-0.076836362	-0.783483342	-0.012436503	-0.002485327	0.0000260324	1.0073157152			

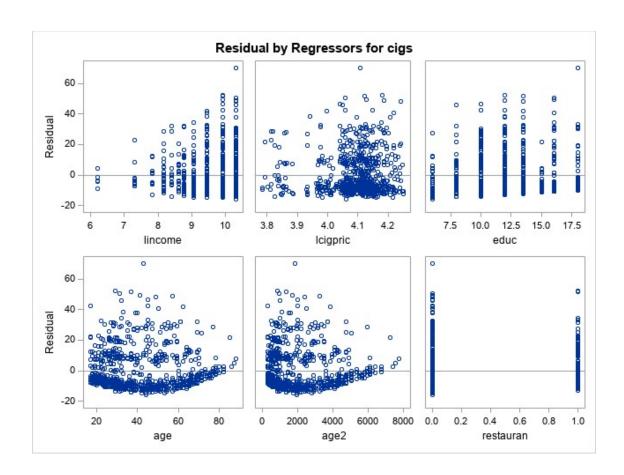
	est of First an Moment Spec	
DF	Chi-Square	Pr > ChiSq
25	71.57	<.0001

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**The SAS System** 



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# The SAS System

Number of Observations Read	807
Number of Observations Used	807

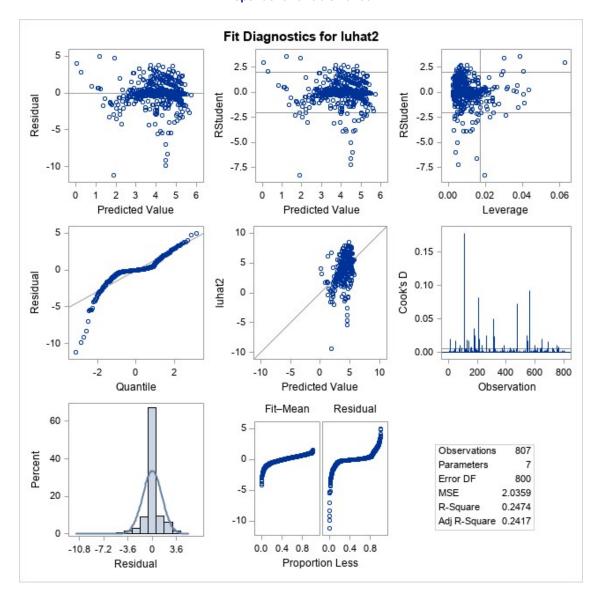
Analysis of Variance							
Source Sum of Mean Square F Value Pr >							
Model	6	535.30352	89.21725	43.82	<.0001		
Error	800	1628.74724	2.03593				
Corrected Total	806	2164.05076					

Root MSE	1.42686	R-Square	0.2474
Dependent Mean	4.20749	Adj R-Sq	0.2417
Coeff Var	33.91245		

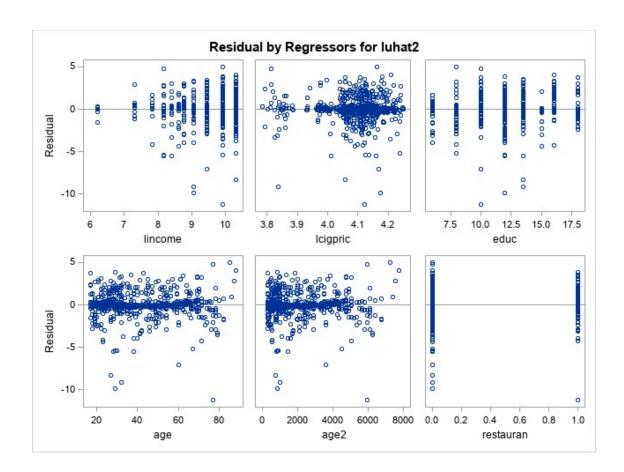
Parameter Estimates								
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t			
Intercept	1	-1.92069	2.56303	-0.75	0.4538			
lincome	1	0.29154	0.07747	3.76	0.0002			
lcigpric	1	0.19542	0.61454	0.32	0.7506			
educ	1	-0.07970	0.01778	-4.48	<.0001			
age	1	0.20401	0.01704	11.97	<.0001			
age2	1	-0.00239	0.00018554	-12.89	<.0001			
restauran	1	-0.62701	0.11834	-5.30	<.0001			

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**The SAS System** 



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### **The SAS System**

# **Weighted Regression**

The REG Procedure Model: MODEL1 Dependent Variable: cigs

Number of	Observations Read	807
Number of	<b>Observations Used</b>	807

#### Weight: hhat

Analysis of Variance						
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F	
Model	6	255.04322	42.50720	17.06	<.0001	
Error	800	1993.83090	2.49229			
<b>Corrected Total</b>	806	2248.87413				

Root MSE	1.57870	R-Square	0.1134
Dependent Mean	5.02187	Adj R-Sq	0.1068
Coeff Var	31.43647		

Parameter Estimates						
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t	
Intercept	1	5.63547	17.80314	0.32	0.7517	
lincome	1	1.29524	0.43701	2.96	0.0031	
lcigpric	1	-2.94031	4.46014	-0.66	0.5099	
educ	1	-0.46345	0.12016	-3.86	0.0001	
age	1	0.48195	0.09681	4.98	<.0001	
age2	1	-0.00563	0.00093948	-5.99	<.0001	
restauran	1	-3.46106	0.79551	-4.35	<.0001	

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### **The SAS System**

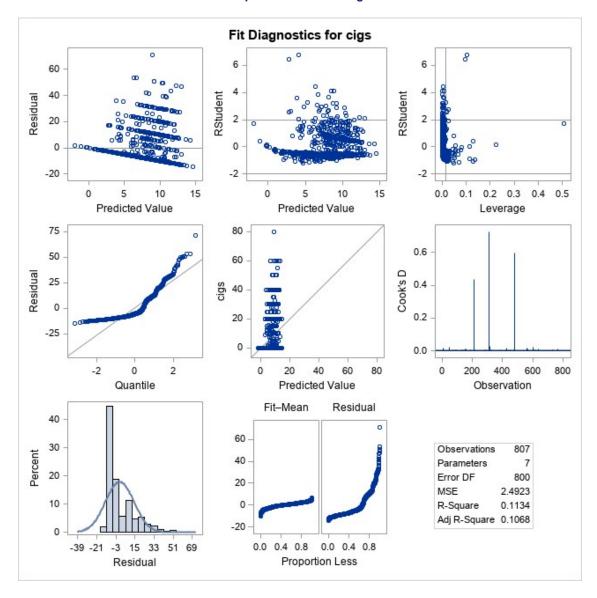
# **Weighted Regression**

-	Test of First and Second Moment Specification				
DF	•	Chi-Square	Pr > ChiSq		
26	6	31.83	0.1987		

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**The SAS System** 

#### **Weighted Regression**



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