Program Summary - Tom Midgley_Assignment.sas

Execution Environment

Author:	u63510871
File:	/home/u63510871/Tom Midgley_Assignment.sas
SAS Platform:	Linux LIN X64 3.10.0-1062.4.1.el7.x86_64
SAS Host:	ODAWS02-APSE1.ODA.SAS.COM
SAS Version:	9.04.01M7P08062020
SAS Locale:	en_AU
Submission Time:	14/11/2023, 3:25:49 pm
Browser Host:	122-199-34-14.IP4.SUPERLOOP.AU
User Agent:	Mozilla/5.0 (Macintosh; Intel Mac OS X 10_15_7) AppleWebKit/605.1.15 (KHTML, like Gecko) Version/16.4 Safari/605.1.15
Application Server:	ODAMID00-APSE1.ODA.SAS.COM

Code: Tom Midgley_Assignment.sas

```
/* Q1a Use SAS to obtain boxplots of weight separated by both family
and NCP. Also obtain boxplots of weight separated by both family and FAVC.*/

/* Create boxplots */
ods graphics on;

proc sgplot data=mydata.obesity;
    title height=14pt "Box Plots Comparing the Effect of Family History and Number of Main Meals on Weight";
  vbox weight / category=family group=NCP grouporder=ascending;
run;

proc sgplot data=mydata.obesity;
    title height=14pt "Box Plots Comparing the Effect of Family History and Consumption of Calorific Food on Weight'
  vbox weight / category=family group=FAVC grouporder=ascending;
run;

ods graphics off;

/* Q1b1 Obtain measures of dispersion, skewness and kurtosis. Obtain a boxplot, histogram
and a quantile-quantile plot. Also carry out Normal Goodness-of-□t tests.

/* Obtain measures of dispersion, skewness and kurtosis */
proc means data=mydata.obesity n mean std skewness kurtosis;
  var weight;
  class family;
run;

/* Create boxplot  */
ods graphics / reset width=6.4in height=4.8in imagemap;

proc sgplot data=MYDATA.OBESITY;
    title height=14pt "Box Plot to Study The Distribution of Weight by Family History of Obesity";
    vbox Weight / category=family;
    yaxis grid;
run;
ods graphics / reset;



/* Create histogram  */
ods graphics / reset width=6.4in height=4.8in imagemap;

proc sgplot data=MYDATA.OBESITY;
    title height=14pt "Distribution of Weight by Family History of Obesity";
    histogram Weight / group=family transparency=0.5;
    density Weight/ group=family;
    yaxis grid;
run;

ods graphics / reset;



/* Quantile-Quantile Plot and Normal Goodness-of-Fit test */
proc univariate data=mydata.obesity normal;
   var Weight;
  class family;
  qqplot weight / normal(mu=EST sigma=EST);
  title height=14pt "QQ Plot";
```

```
run;



/* Q2a1 Obtain a Pearson correlation matrix relating variables weight, age and height.*/
ods noproctitle;
ods graphics / imagemap=on;

proc corr data=MYDATA.OBESITY pearson nosimple
        plots(maxpoints=none)=matrix(histogram);
    var Weight Age Height;
run;

/* Q2a2 Obtain Fisher's transformation of correlation coefficients */
proc corr data=MYDATA.OBESITY fisher;
  var Weight Age Height;
run;



/*Q2b Fit a simple regression model relating weight to height, with weight as the dependent variable.*/
ods noproctitle;
ods graphics / imagemap=on;

proc reg data=MYDATA.OBESITY alpha=0.05 ;
  model Weight=Height / clb;
    output out= r=residuals cookd;
  title "Linear Regression of Height vs Weight";
run;



quit;

/********Q2c Build a multiple regression model for observations that have a family member su□ered from overweight w
/* define dummy variables*/

/* Create an empty dataset to store the dummy variables */
data work.obesity_dummies;
  set mydata.obesity;

  /* Initialize all dummy variables to missing values */
  FAVC_dummy = .;
  CAEC_dummy = .;
  SMOKE_dummy = .;
  SCC_dummy = .;
  CALC_dummy = .;
  MTRANS_dummy = .;


  /* Create dummy variable for FAVC */
  if FAVC = 'yes' then FAVC_dummy = 1;
  else if FAVC = 'no' then FAVC_dummy = 0;

  /* Create dummy variable for CAEC */
  if CAEC = 'no' then CAEC_dummy = 0;
  else if CAEC = 'Sometimes' then CAEC_dummy = 1;
  else if CAEC = 'Frequently' then CAEC_dummy = 2;
  else if CAEC = 'Always' then CAEC_dummy = 3;

  /* Create dummy variable for SMOKE */
  if SMOKE = 'yes' then SMOKE_dummy = 1;
  else if SMOKE = 'no' then SMOKE_dummy = 0;

  /* Create dummy variable for SCC */
  if SCC = 'yes' then SCC_dummy = 1;
  else if SCC = 'no' then SCC_dummy = 0;

  /* Create dummy variable for CALC */
  if CALC = 'no' then CALC_dummy = 0;
  else if CALC = 'Sometimes' then CALC_dummy = 1;
  else if CALC = 'Frequently' then CALC_dummy = 2;

  /* Create dummy variable for MTRANS */
  if MTRANS = 'Automobile' then MTRANS_dummy = 0;
  else if MTRANS = 'Motorbike' then MTRANS_dummy = 1;
  else if MTRANS = 'Bike' then MTRANS_dummy = 2;
  else if MTRANS = 'Public_Transportation' then MTRANS_dummy = 3;
  else if MTRANS = 'Walking' then MTRANS_dummy = 4;
```

```
run;

proc print data= work.obesity_dummies (obs=10) noobs;
run;




/* Perform multiple regression analysis */

proc reg data=work.obesity_dummies;
   where Family = 'yes'; /* Filter observations where a family member has suffered from overweight */
  model Weight = Height Age FAVC_dummy FCVC CAEC_dummy SMOKE_dummy SCC_dummy FAF TUE CALC_dummy MTRANS_dummy / selec
  title "Stepwise Regression Model";
  run;



/* Perform multiple regression analysis */

proc reg data=work.obesity_dummies;
   where Family = 'no'; /* Filter observations where a family member has suffered from overweight */
  model Weight = Height Age FAVC_dummy FCVC CAEC_dummy SMOKE_dummy SCC_dummy FAF TUE CALC_dummy MTRANS_dummy / selec
  title "Stepwise Regression Model family = no";
run;
```

Log: Tom Midgley_Assignment.sas

Errors (2)

Notes (28)

```
1          OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
NOTE: ODS statements in the SAS Studio environment may disable some output features.
73
74         /* Q1a Use SAS to obtain boxplots of weight separated by both family
75         and NCP. Also obtain boxplots of weight separated by both family and FAVC.*/
76
77         /* Create boxplots */
78         ods graphics on;
79
80         proc sgplot data=mydata.obesity;
81         title height=14pt "Box Plots Comparing the Effect of Family History and Number of Main Meals on Weight";
82           vbox weight / category=family group=NCP grouporder=ascending;
83         run;

NOTE: PROCEDURE SGPLOT used (Total process time):
      real time           0.40 seconds
      user cpu time       0.16 seconds
      system cpu time     0.03 seconds
      memory              21905.18k
      OS Memory           51244.00k
      Timestamp           14/11/2023 04:55:27 AM
      Step Count                        45  Switch Count  2
      Page Faults                       4
      Page Reclaims                     5558
      Page Swaps                        0
      Voluntary Context Switches        920
      Involuntary Context Switches      0
      Block Input Operations            1256
      Block Output Operations           1424

NOTE: There were 2111 observations read from the data set MYDATA.OBESITY.

84
85         proc sgplot data=mydata.obesity;
86         title height=14pt "Box Plots Comparing the Effect of Family History and Consumption of Calorific Food on Weight";
87           vbox weight / category=family group=FAVC grouporder=ascending;
88         run;

NOTE: PROCEDURE SGPLOT used (Total process time):
      real time           0.34 seconds
      user cpu time       0.09 seconds
      system cpu time     0.00 seconds
      memory              3597.21k
```

```
Step Count                        56  Switch Count  75
Page Faults                       4
Page Reclaims                     26707
Page Swaps                        0
Voluntary Context Switches        1464
Involuntary Context Switches      7
Block Input Operations            992
Block Output Operations           38672
```

```
239        proc reg data=work.obesity_dummies;
240           where Family = 'no'; /* Filter observations where a family member has suffered from overweight */
241           model Weight = Height Age FAVC_dummy FCVC CAEC_dummy SMOKE_dummy SCC_dummy FAF TUE CALC_dummy MTRANS_dummy / selection
241      !  cp CLB influence VIF;
242           title "Stepwise Regression Model family = no";
243        run;

244
245
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250
251        OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
263
```
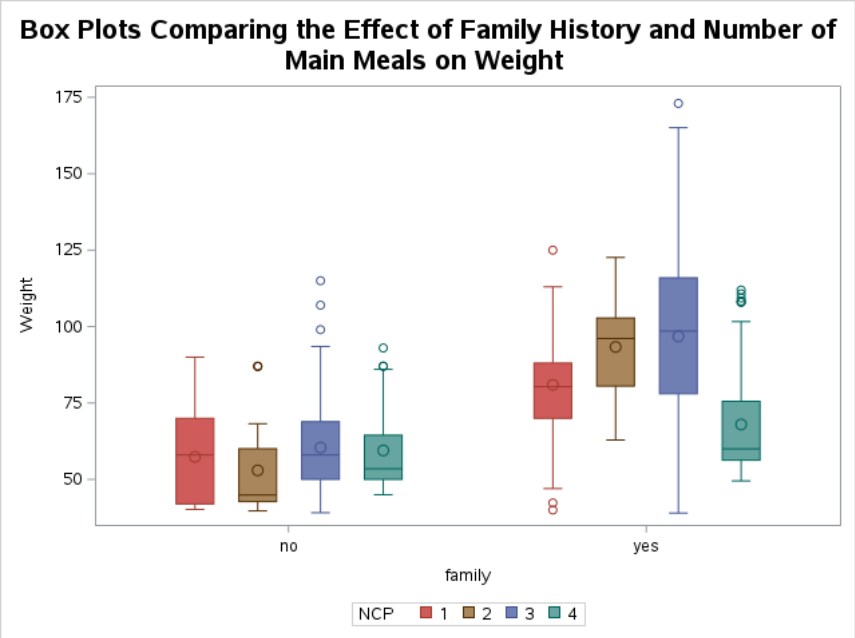
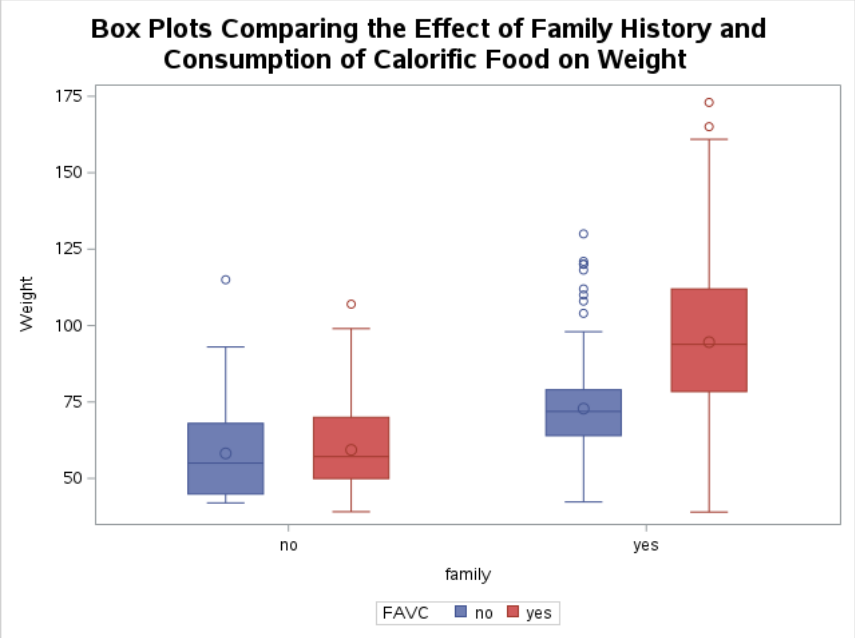
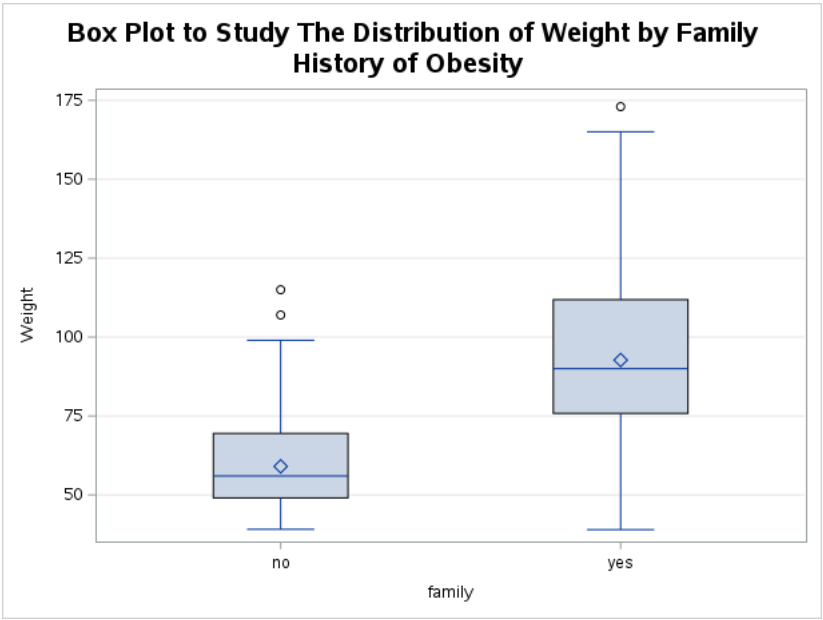

Results: Tom Midgley_Assignment.sas

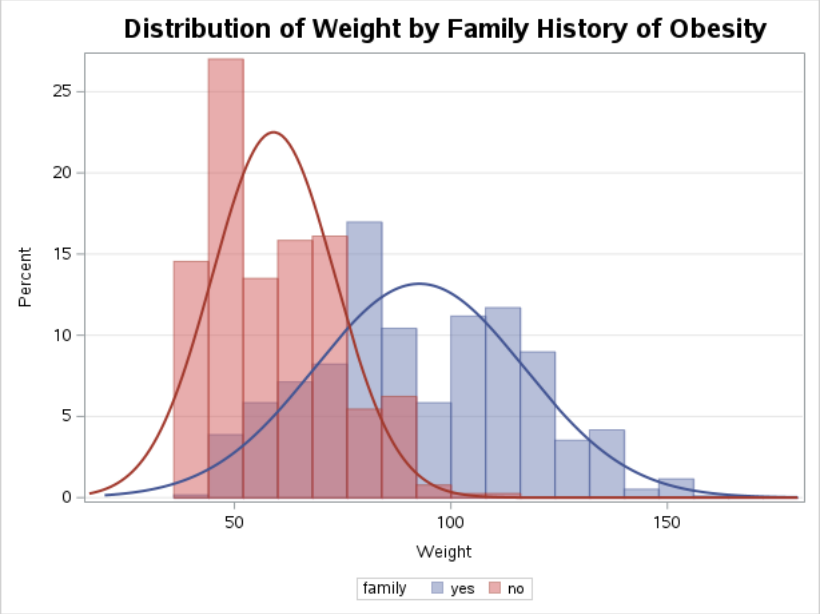




Box Plots Comparing the Effect of Family History and Consumption of Calorific Food on Weight

Analysis Variable : Weight						
family	N Obs	N	Mean	Std Dev	Skewness	Kurtosis
no	385	385	59.0411410	14.1815452	0.7613633	0.1148801
yes	1726	1726	92.7302024	24.2321899	0.1713414	-0.6152659





QQ Plot

Variable: Weight
family = no

Moments			
N	385	Sum Weights	385
Mean	59.041141	Sum Observations	22730.8393
Std Deviation	14.1815452	Variance	201.116224
Skewness	0.7613633	Kurtosis	0.11488006
Uncorrected SS	1419283.32	Corrected SS	77228.6302
Coeff Variation	24.0197682	Std Error Mean	0.72275847

Basic Statistical Measures			
Location		Variability	
Mean	59.04114	Std Deviation	14.18155
Median	56.00000	Variance	201.11622
Mode	50.00000	Range	75.89820
		Interquartile Range	20.46021

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	81.68862	Pr > |t|	<.0001
Sign	M	192.5	Pr >= |M|	<.0001
Signed Rank	S	37152.5	Pr >= |S|	<.0001

Tests for Normality				
Test	Statistic		p Value	
Shapiro-Wilk	W	0.932971	Pr < W	<0.0001
Kolmogorov-Smirnov	D	0.122084	Pr > D	<0.0100
Cramer-von Mises	W-Sq	1.082018	Pr > W-Sq	<0.0050
Anderson-Darling	A-Sq	7.119338	Pr > A-Sq	<0.0050

Quantiles (Definition 5)	
Level	Quantile
100% Max	115.0000
99%	93.5000
95%	86.9638
90%	80.0000
75% Q3	69.5000
50% Median	56.0000
25% Q1	49.0398
10%	42.0000
5%	42.0000
1%	39.8501
0% Min	39.1018

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
39.1018	726	93.0	91
39.3715	590	93.5	143

39.6953	637	99.0	14
39.8501	589	107.0	271
40.2028	620	115.0	258

QQ Plot

Variable: Weight
family = yes

Moments			
N	1726	**Sum Weights**	1726
Mean	92.7302024	**Sum Observations**	160052.329
Std Deviation	24.2321899	**Variance**	587.199027
Skewness	0.17134142	**Kurtosis**	-0.6152659
Uncorrected SS	15854603.2	**Corrected SS**	1012918.32
Coeff Variation	26.1319282	**Std Error Mean**	0.58327353

Basic Statistical Measures			
Location		**Variability**	
Mean	92.73020	**Std Deviation**	24.23219
Median	89.98668	**Variance**	587.19903
Mode	80.00000	**Range**	134.00000
		Interquartile Range	36.01359

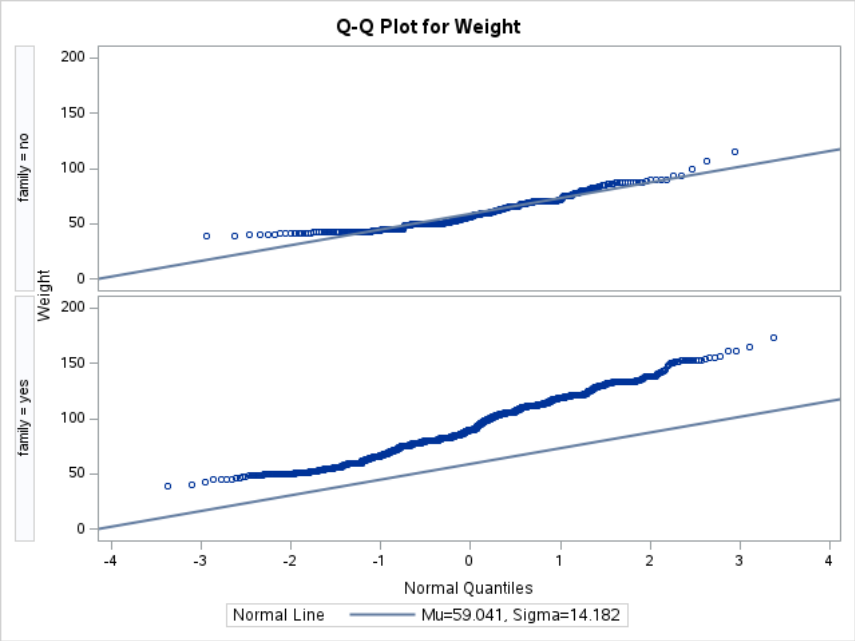
Tests for Location: Mu0=0				
Test	**Statistic**		**p Value**	
Student's t	**t**	158.9824	**Pr > |t|**	<.0001
Sign	**M**	863	**Pr >= |M|**	<.0001
Signed Rank	**S**	745200.5	**Pr >= |S|**	<.0001

Tests for Normality				
Test	**Statistic**		**p Value**	
Shapiro-Wilk	**W**	0.983246	**Pr < W**	<0.0001
Kolmogorov-Smirnov	**D**	0.073253	**Pr > D**	<0.0100
Cramer-von Mises	**W-Sq**	1.744264	**Pr > W-Sq**	<0.0050
Anderson-Darling	**A-Sq**	9.149367	**Pr > A-Sq**	<0.0050

Quantiles (Definition 5)	
Level	**Quantile**
100% Max	173.0000
99%	151.9759
95%	133.3651
90%	122.1197
75% Q3	111.8417
50% Median	89.9867
25% Q1	75.8281
10%	60.0000
5%	53.7840
1%	49.0000
0% Min	39.0000

Extreme Observations			
Lowest		**Highest**	
Value	**Obs**	**Value**	**Obs**
39.0	396	155.872	1839
40.0	199	160.639	1911
42.3	219	160.935	1899
45.0	303	165.057	503
45.0	157	173.000	345

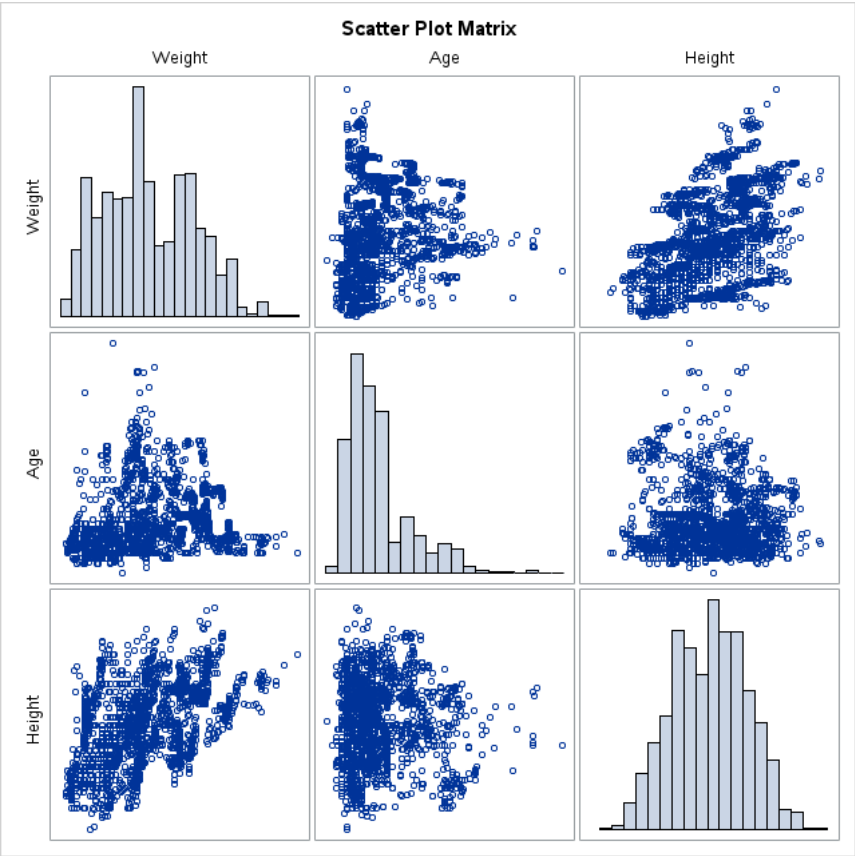
QQ Plot



QQ Plot

3 Variables:	Weight Age Height

Pearson Correlation Coefficients, N = 2111 Prob > |r| under H0: Rho=0	Weight	Age	Height
Weight	1.00000	0.20256 <.0001	0.46314 <.0001
Age	0.20256 <.0001	1.00000	-0.02596 0.2332
Height	0.46314 <.0001	-0.02596 0.2332	1.00000



QQ Plot

3 Variables:	Weight Age Height

Simple Statistics						
Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
Weight	2111	86.58606	26.19117	182783	39.00000	173.00000
Age	2111	24.31260	6.34597	51324	14.00000	61.00000
Height	2111	1.70168	0.09330	3592	1.45000	1.98000

Pearson Correlation Coefficients, N = 2111 Prob > |r| under H0: Rho=0			
	Weight	Age	Height
Weight	1.00000	0.20256 <.0001	0.46314 <.0001
Age	0.20256 <.0001	1.00000	-0.02596 0.2332
Height	0.46314 <.0001	-0.02596 0.2332	1.00000

Pearson Correlation Statistics (Fisher's z Transformation)									
Variable	With Variable	N	Sample Correlation	Fisher's z	Bias Adjustment	Correlation Estimate	95% Confidence Limits		p Value for H0:Rho=0
Weight	Age	2111	0.20256	0.20540	0.0000480	0.20251	0.161244	0.243077	<.0001
Weight	Height	2111	0.46314	0.50130	0.0001097	0.46305	0.428859	0.495916	<.0001
Age	Height	2111	-0.02596	-0.02596	-6.1512E-6	-0.02595	-0.068539	0.016729	0.2332

Linear Regression of Height vs Weight

Model: MODEL1
Dependent Variable: Weight

Number of Observations Read	2111
Number of Observations Used	2111

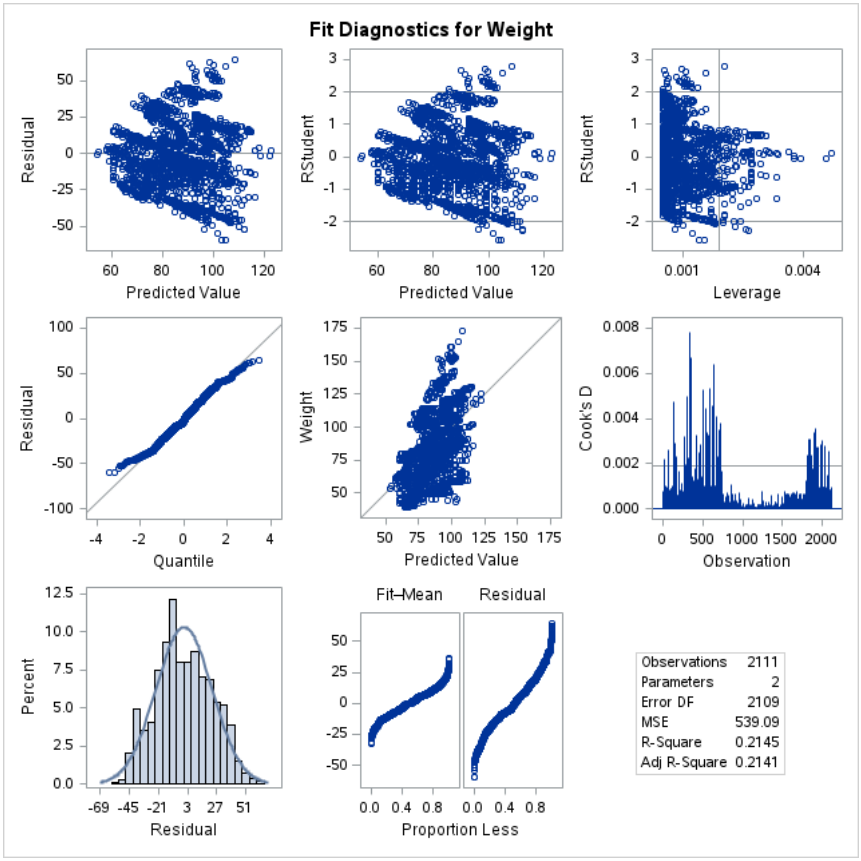
Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	310463	310463	575.90	<.0001
Error	2109	1136950	539.09419		
Corrected Total	2110	1447412			

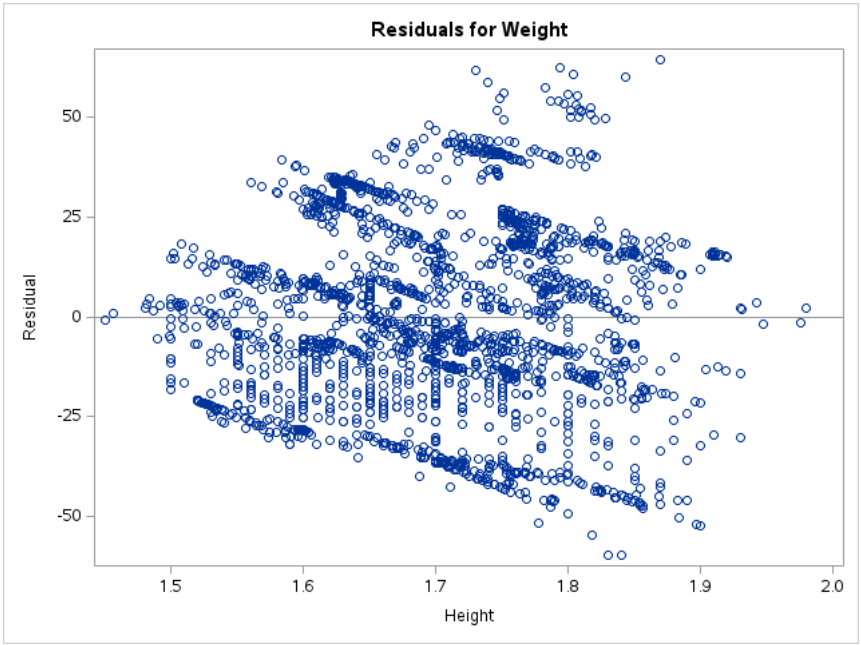
Root MSE	23.21840	R-Square	0.2145
Dependent Mean	86.58606	Adj R-Sq	0.2141
Coeff Var	26.81540		

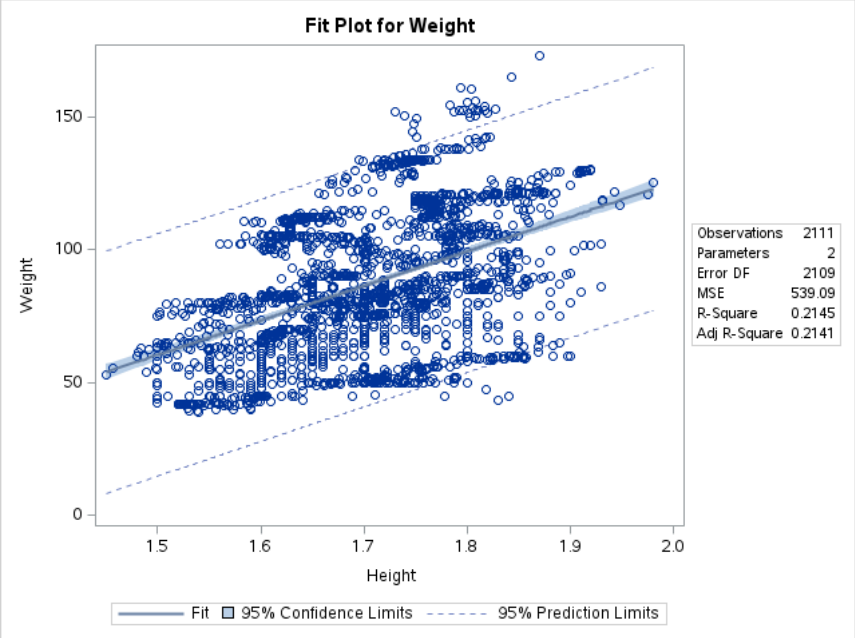
Parameter Estimates							
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	95% Confidence Limits	
Intercept	1	-134.64022	9.23243	-14.58	<.0001	-152.74583	-116.53461
Height	1	130.00483	5.41735	24.00	<.0001	119.38092	140.62874

Linear Regression of Height vs Weight

Model: MODEL1
Dependent Variable: Weight


Fit Diagnostics for Weight
Residual
Predicted Value
RStudent
Predicted Value
RStudent
Leverage
Residual
Quantile
Weight
Predicted Value
Cook's D
Observation
Percent
Residual
Fit–Mean
Residual
Proportion Less
Observations 2111
Parameters 2
Error DF 2109
MSE 539.09
R-Square 0.2145
Adj R-Square 0.2141


Residuals for Weight
Residual
Height



Linear Regression of Height vs Weight

Gender	Age	Height	Weight	family	FAVC	FCVC	NCP	CAEC	SMOKE	CH2O	SCC	FAF	TUE	CALC	MTRANS	NObeyesdad	FAVC_dummy	CAEC_dummy	SMOKE_dummy
Female	21	1.62	64	yes	no	2	3	Sometimes	no	2	no	0	1	no	Public_Transportation	Normal_Weight	0	1	0
Female	21	1.52	56	yes	no	3	3	Sometimes	yes	3	yes	3	0	Sometimes	Public_Transportation	Normal_Weight	0	1	1
Male	23	1.8	77	yes	no	2	3	Sometimes	no	2	no	2	1	Frequently	Public_Transportation	Normal_Weight	0	1	0
Male	27	1.8	87	no	no	3	3	Sometimes	no	2	no	2	0	Frequently	Walking	Overweight_Level_I	0	1	0
Male	22	1.78	89.8	no	no	2	1	Sometimes	no	2	no	0	0	Sometimes	Public_Transportation	Overweight_Level_II	0	1	0
Male	29	1.62	53	no	yes	2	3	Sometimes	no	2	no	0	0	Sometimes	Automobile	Normal_Weight	1	1	0
Female	23	1.5	55	yes	yes	3	3	Sometimes	no	2	no	1	0	Sometimes	Motorbike	Normal_Weight	1	1	0
Male	22	1.64	53	no	no	2	3	Sometimes	no	2	no	3	0	Sometimes	Public_Transportation	Normal_Weight	0	1	0
Male	24	1.78	64	yes	yes	3	3	Sometimes	no	2	no	1	1	Frequently	Public_Transportation	Normal_Weight	1	1	0
Male	22	1.72	68	yes	yes	2	3	Sometimes	no	2	no	1	1	no	Public_Transportation	Normal_Weight	1	1	0

Stepwise Regression Model

Model: MODEL1
Dependent Variable: Weight

C(p) Selection Method

Number of Observations Read	1726
Number of Observations Used	1725
Number of Observations with Missing Values	1

Number in Model	C(p)	R-Square	Variables in Model
9	8.4389	0.4278	Height Age FAVC_dummy FCVC CAEC_dummy SCC_dummy FAF CALC_dummy MTRANS_dummy
10	10.0303	0.4280	Height Age FAVC_dummy FCVC CAEC_dummy SMOKE_dummy SCC_dummy FAF CALC_dummy MTRANS_dummy
10	10.3985	0.4278	Height Age FAVC_dummy FCVC CAEC_dummy SCC_dummy FAF TUE CALC_dummy MTRANS_dummy
11	12.0000	0.4280	Height Age FAVC_dummy FCVC CAEC_dummy SMOKE_dummy SCC_dummy FAF TUE CALC_dummy MTRANS_dummy
8	31.9373	0.4193	Height Age FAVC_dummy FCVC CAEC_dummy FAF CALC_dummy MTRANS_dummy
9	32.7302	0.4197	Height Age FAVC_dummy FCVC CAEC_dummy SMOKE_dummy FAF CALC_dummy MTRANS_dummy
8	33.8788	0.4187	Height Age FAVC_dummy FCVC CAEC_dummy SCC_dummy CALC_dummy MTRANS_dummy
9	33.9058	0.4193	Height Age FAVC_dummy FCVC CAEC_dummy FAF TUE CALC_dummy MTRANS_dummy
10	34.7129	0.4197	Height Age FAVC_dummy FCVC CAEC_dummy SMOKE_dummy FAF TUE CALC_dummy MTRANS_dummy
9	35.4329	0.4188	Height Age FAVC_dummy FCVC CAEC_dummy SMOKE_dummy SCC_dummy CALC_dummy MTRANS_dummy
9	35.7957	0.4187	Height Age FAVC_dummy FCVC CAEC_dummy SCC_dummy TUE CALC_dummy MTRANS_dummy
10	37.3653	0.4188	Height Age FAVC_dummy FCVC CAEC_dummy SMOKE_dummy SCC_dummy TUE CALC_dummy MTRANS_dummy
8	43.9976	0.4153	Height Age FCVC CAEC_dummy SCC_dummy FAF CALC_dummy MTRANS_dummy
9	44.6456	0.4157	Height Age FCVC CAEC_dummy SMOKE_dummy SCC_dummy FAF CALC_dummy MTRANS_dummy
9	45.9939	0.4153	Height Age FCVC CAEC_dummy SCC_dummy FAF TUE CALC_dummy MTRANS_dummy
10	46.6345	0.4157	Height Age FCVC CAEC_dummy SMOKE_dummy SCC_dummy FAF TUE CALC_dummy MTRANS_dummy
7	61.5588	0.4088	Height Age FAVC_dummy FCVC CAEC_dummy CALC_dummy MTRANS_dummy
8	62.1970	0.4092	Height Age FAVC_dummy FCVC CAEC_dummy SMOKE_dummy CALC_dummy MTRANS_dummy
8	63.4863	0.4088	Height Age FAVC_dummy FCVC CAEC_dummy TUE CALC_dummy MTRANS_dummy
9	64.1483	0.4092	Height Age FAVC_dummy FCVC CAEC_dummy SMOKE_dummy TUE CALC_dummy MTRANS_dummy
8	75.4865	0.4048	Height Age FCVC CAEC_dummy SMOKE_dummy FAF CALC_dummy MTRANS_dummy
7	76.5893	0.4037	Height Age FCVC CAEC_dummy FAF CALC_dummy MTRANS_dummy
9	77.4519	0.4048	Height Age FCVC CAEC_dummy SMOKE_dummy FAF TUE CALC_dummy MTRANS_dummy
8	78.0106	0.4039	Height Age FAVC_dummy FCVC CAEC_dummy SCC_dummy FAF MTRANS_dummy

7	178.7386	0.3696	Height Age FAVC_dummy FCVC SCC_dummy CALC_dummy MTRANS_dummy
6	179.0628	0.3688	Height FAVC_dummy FCVC CAEC_dummy FAF CALC_dummy
7	179.5350	0.3694	Height Age FAVC_dummy CAEC_dummy FAF CALC_dummy MTRANS_dummy
7	179.5447	0.3694	Height Age FAVC_dummy CAEC_dummy SCC_dummy CALC_dummy MTRANS_dummy
9	180.1954	0.3705	Height Age FAVC_dummy FCVC SMOKE_dummy SCC_dummy TUE CALC_dummy MTRANS_dummy

Stepwise Regression Model

Model: MODEL1
Dependent Variable: Weight

Number of Observations Read	1726
Number of Observations Used	1725
Number of Observations with Missing Values	1

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	9	433025	48114	142.48	<.0001
Error	1715	579124	337.68153		
Corrected Total	1724	1012149			

Root MSE	18.37611	R-Square	0.4278
Dependent Mean	92.74628	Adj R-Sq	0.4248
Coeff Var	19.81332		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	Variance Inflation	95% Confidence Limits	
Intercept	1	-151.37292	10.36317	-14.61	<.0001	0	-171.69870	-131.04714
Height	1	110.63623	5.59623	19.77	<.0001	1.27899	99.66007	121.61240
Age	1	0.93655	0.09228	10.15	<.0001	1.74936	0.75555	1.11755
FAVC_dummy	1	10.20500	1.66441	6.13	<.0001	1.09637	6.94051	13.46948
FCVC	1	9.70522	0.78056	12.43	<.0001	1.02634	8.17427	11.23617
CAEC_dummy	1	-14.04585	1.14774	-12.24	<.0001	1.02534	-16.29696	-11.79474
SCC_dummy	1	-14.10467	2.79196	-5.05	<.0001	1.05539	-19.58067	-8.62867
FAF	1	-2.86786	0.54723	-5.24	<.0001	1.18884	-3.94117	-1.79455
CALC_dummy	1	7.64020	0.90268	8.46	<.0001	1.09764	5.86972	9.41068
MTRANS_dummy	1	5.01596	0.44297	11.32	<.0001	1.67956	4.14715	5.88477

Stepwise Regression Model

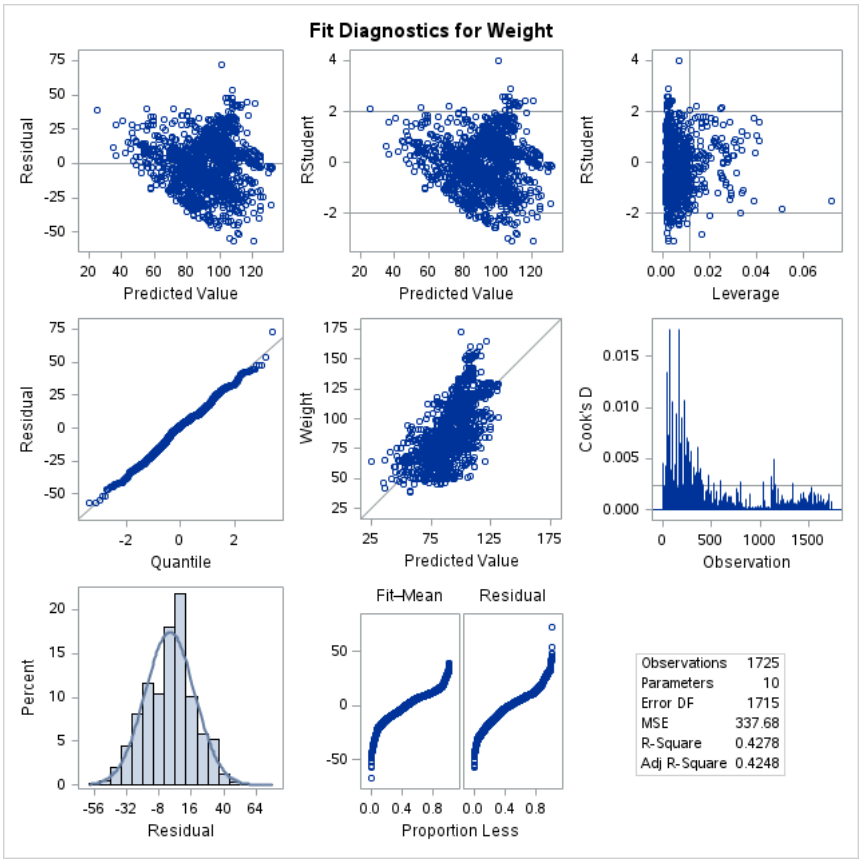
Model: MODEL1
Dependent Variable: Weight

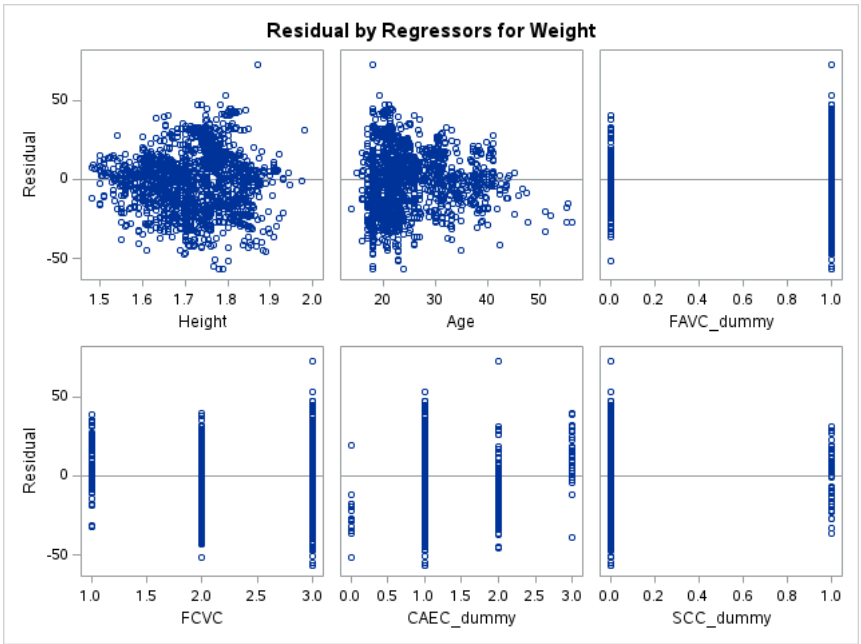
Output Statistics

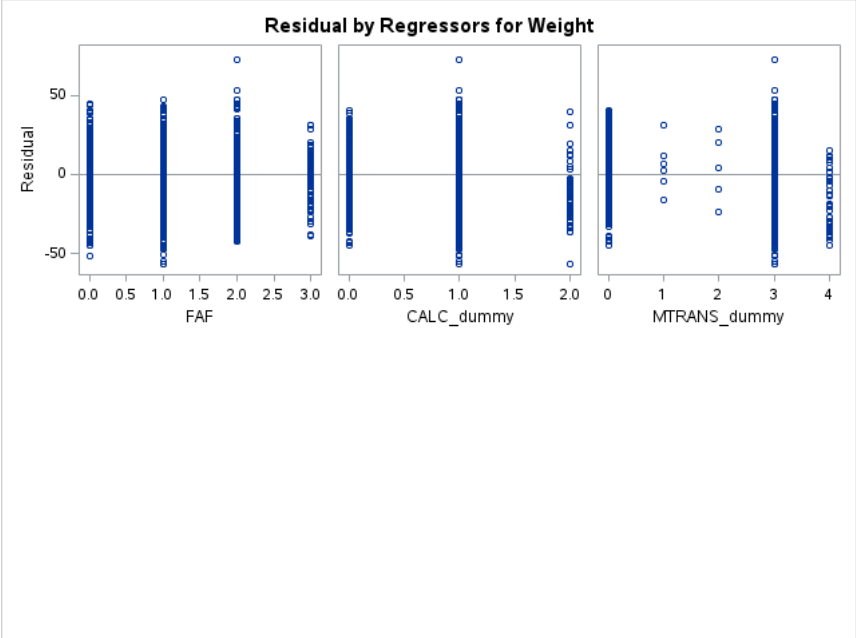
Obs	Residual	RStudent	Hat Diag H	Cov Ratio	DFFITS	DFBETAS									
						Intercept	Height	Age	FAVC_dummy	FCVC	CAEC_dummy	SCC_dummy	FAF	CALC_dummy	MTRANS_dummy
1	-3.9378	-0.2153	0.0098	1.0155	-0.0214	-0.0037	-0.0014	0.0028	0.0173	0.0025	0.0024	0.0027	0.0081	0.0066	-0.0002
2	4.4887	0.2480	0.0303	1.0370	0.0439	0.0128	-0.0133	-0.0005	-0.0108	0.0032	-0.0058	0.0320	0.0142	0.0076	0.0008
3	-22.2701	-1.2202	0.0133	1.0106	-0.1415	0.0077	-0.0228	-0.0039	0.1034	0.0253	0.0048	0.0202	-0.0255	-0.0772	-0.0142
4	-16.1852	-0.8844	0.0084	1.0098	-0.0814	-0.0657	0.0651	0.0380	-0.0176	-0.0191	0.0049	0.0093	-0.0184	-0.0268	0.0421
5	-56.7720	-3.1047	0.0048	0.9556	-0.2153	0.0381	-0.0172	-0.0039	-0.0040	-0.0568	0.0071	0.0139	-0.0133	-0.1706	-0.0312
6	-19.2751	-1.0502	0.0024	1.0018	-0.0516	0.0015	-0.0074	0.0003	-0.0086	0.0169	0.0090	0.0006	0.0044	0.0358	-0.0121
7	-0.8357	-0.0456	0.0070	1.0129	-0.0038	0.0022	-0.0014	-0.0012	-0.0001	-0.0010	-0.0027	0.0004	-0.0010	-0.0004	-0.0011
8	17.0396	0.9392	0.0253	1.0266	0.1512	-0.0045	-0.0059	0.0090	0.0315	-0.0272	0.0384	0.1330	0.0220	0.0168	0.0140
9	-51.0889	-2.7880	0.0017	0.9630	-0.1146	0.0473	-0.0388	-0.0014	-0.0062	-0.0636	0.0156	0.0083	0.0088	-0.0193	-0.0261
10	18.8614	1.0454	0.0359	1.0367	0.2017	-0.0260	0.0124	0.0174	-0.0605	0.0187	0.1075	0.1272	0.0124	0.0203	0.0128
11	-20.8317	-1.1370	0.0058	1.0041	-0.0868	0.0697	-0.0716	-0.0343	0.0078	0.0195	0.0052	-0.0041	0.0167	0.0037	-0.0356
12	4.8595	0.2656	0.0089	1.0145	0.0252	-0.0042	0.0040	-0.0020	0.0005	0.0087	0.0145	-0.0019	-0.0092	-0.0101	-0.0110
13	-10.7702	-0.5886	0.0090	1.0129	-0.0560	-0.0083	-0.0029	0.0037	0.0486	0.0094	0.0046	0.0077	0.0186	-0.0092	-0.0031
14	11.3942	0.6237	0.0119	1.0156	0.0683	0.0104	-0.0068	0.0121	-0.0429	-0.0117	-0.0054	-0.0106	0.0321	-0.0126	0.0223
15	-22.5777	-1.2383	0.0153	1.0124	-0.1542	0.0614	-0.0337	-0.1222	-0.0012	-0.0347	0.0009	-0.0103	0.0260	0.0635	-0.0337
16	-21.8281	-1.1922	0.0070	1.0045	-0.0999	-0.0503	0.0370	0.0668	-0.0106	-0.0327	0.0080	0.0105	-0.0038	-0.0247	0.0837
17	7.1984	0.3930	0.0068	1.0118	0.0324	0.0177	-0.0137	-0.0049	0.0056	-0.0252	-0.0022	-0.0005	-0.0046	0.0092	0.0027
18	-43.2293	-2.3605	0.0041	0.9778	-0.1522	0.0753	-0.1030	0.0174	0.0128	0.0374	0.0164	-0.0043	0.0942	-0.0023	-0.0177
19	7.8609	0.4307	0.0141	1.0192	0.0516	0.0148	-0.0133	-0.0019	-0.0277	-0.0075	0.0229	-0.0116	0.0237	-0.0044	0.0019
20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
21	-9.2896	-0.5119	0.0254	1.0304	-0.0826	0.0018	0.0025	0.0008	-0.0165	-0.0071	0.0116	-0.0739	-0.0233	-0.0070	-0.0033
22	-9.6502	-0.5276	0.0098	1.0141	-0.0524	-0.0118	0.0106	-0.0181	0.0388	0.0111	0.0023	0.0072	-0.0053	-0.0115	-0.0162
23	8.4341	0.4617	0.0124	1.0173	0.0518	0.0335	-0.0289	-0.0076	-0.0293	-0.0103	-0.0031	-0.0099	0.0195	0.0174	-0.0007
24	-21.1073	-1.1499	0.0021	1.0002	-0.0527	-0.0294	0.0295	0.0039	-0.0147	0.0257	0.0058	0.0043	-0.0131	-0.0229	-0.0111
25	-3.5621	-0.1943	0.0051	1.0108	-0.0139	-0.0027	0.0032	0.0003	-0.0028	0.0045	0.0009	0.0013	-0.0116	-0.0045	-0.0021
26	-13.4469	-0.7324	0.0020	1.0047	-0.0325	-0.0178	0.0155	0.0091	-0.0084	0.0157	0.0042	0.0030	-0.0060	-0.0142	-0.0029
27	-8.8630	-0.4838	0.0065	1.0110	-0.0390	-0.0100	0.0025	0.0047	-0.0050	0.0281	0.0044	-0.0008	0.0127	0.0145	-0.0040
28	-32.9808	-1.8018	0.0065	0.9935	-0.1457	-0.0664	0.0658	0.0320	-0.0215	0.0473	0.0049	0.0115	-0.0308	-0.1252	-0.0015
29	7.0195	0.3839	0.0102	1.0153	0.0389	0.0163	-0.0081	-0.0066	-0.0283	-0.0053	-0.0043	-0.0055	-0.0110	-0.0091	-0.0008
30	-6.4235	-0.3511	0.0093	1.0146	-0.0341	0.0039	-0.0039	-0.0015	-0.0031	0.0221	-0.0202	0.0029	-0.0094	-0.0072	-0.0056

1659	6.2893	0.3425	0.0022	1.0074	0.0162	0.0004	-0.0023	0.0019	0.0018	0.0074	-0.0017	-0.0007	-0.0070	0.0031	0.0042
1660	4.7556	0.2590	0.0022	1.0077	0.0121	-0.0005	-0.0008	0.0014	0.0011	0.0057	-0.0013	-0.0004	-0.0057	0.0021	0.0032
1661	9.5859	0.5222	0.0025	1.0068	0.0263	0.0061	-0.0095	0.0022	0.0042	0.0108	-0.0026	-0.0014	-0.0087	0.0062	0.0060
1662	9.3173	0.5076	0.0025	1.0069	0.0255	0.0056	-0.0090	0.0024	0.0040	0.0105	-0.0025	-0.0013	-0.0085	0.0059	0.0060
1663	29.7217	1.6200	0.0022	0.9928	0.0760	0.0259	-0.0257	-0.0382	0.0137	0.0353	-0.0107	-0.0103	0.0054	0.0251	-0.0097
1664	30.2232	1.6475	0.0024	0.9925	0.0815	0.0339	-0.0333	-0.0433	0.0155	0.0356	-0.0110	-0.0112	0.0073	0.0275	-0.0127
1665	21.9843	1.1976	0.0018	0.9993	0.0512	0.0129	-0.0153	-0.0179	0.0096	0.0258	-0.0073	-0.0067	0.0045	0.0171	-0.0006
1666	22.1992	1.2093	0.0018	0.9991	0.0510	0.0109	-0.0132	-0.0175	0.0092	0.0262	-0.0074	-0.0066	0.0038	0.0167	-0.0003
1667	25.6099	1.3952	0.0016	0.9961	0.0563	-0.0141	0.0118	-0.0094	0.0046	0.0318	-0.0083	-0.0053	-0.0034	0.0121	0.0066
1668	28.7377	1.5664	0.0024	0.9939	0.0765	-0.0031	-0.0058	-0.0061	0.0127	0.0328	-0.0083	-0.0096	0.0439	0.0220	0.0102
1669	30.5431	1.6651	0.0025	0.9922	0.0841	0.0113	-0.0211	-0.0121	0.0168	0.0340	-0.0089	-0.0115	0.0511	0.0273	0.0072
1670	30.7090	1.6741	0.0025	0.9921	0.0844	0.0104	-0.0196	-0.0138	0.0165	0.0344	-0.0091	-0.0116	0.0505	0.0271	0.0062
1671	9.4387	0.5142	0.0025	1.0069	0.0260	0.0059	-0.0095	0.0025	0.0041	0.0106	-0.0025	-0.0013	-0.0084	0.0061	0.0061
1672	9.3539	0.5096	0.0025	1.0069	0.0257	0.0058	-0.0093	0.0026	0.0041	0.0105	-0.0025	-0.0013	-0.0084	0.0060	0.0062
1673	9.5505	0.5202	0.0025	1.0067	0.0258	0.0046	-0.0081	0.0029	0.0038	0.0108	-0.0025	-0.0013	-0.0090	0.0058	0.0064
1674	8.4535	0.4605	0.0024	1.0070	0.0225	0.0031	-0.0061	0.0027	0.0031	0.0097	-0.0022	-0.0010	-0.0083	0.0048	0.0058
1675	10.0285	0.5463	0.0025	1.0066	0.0273	0.0054	-0.0091	0.0029	0.0041	0.0114	-0.0026	-0.0014	-0.0093	0.0062	0.0067
1676	10.9029	0.5940	0.0025	1.0063	0.0300	0.0068	-0.0109	0.0030	0.0047	0.0123	-0.0029	-0.0015	-0.0098	0.0070	0.0072
1677	9.4106	0.5127	0.0025	1.0069	0.0259	0.0059	-0.0094	0.0025	0.0041	0.0106	-0.0025	-0.0013	-0.0084	0.0061	0.0061
1678	12.9536	0.7059	0.0030	1.0059	0.0386	0.0141	-0.0195	0.0025	0.0071	0.0141	-0.0033	-0.0023	-0.0094	0.0100	0.0078
1679	30.2014	1.6464	0.0025	0.9926	0.0823	0.0073	-0.0160	-0.0135	0.0155	0.0341	-0.0090	-0.0112	0.0485	0.0259	0.0062
1680	31.1422	1.6978	0.0026	0.9916	0.0859	0.0119	-0.0212	-0.0144	0.0170	0.0348	-0.0092	-0.0118	0.0516	0.0279	0.0060
1681	30.8391	1.6812	0.0025	0.9919	0.0845	0.0098	-0.0207	-0.0085	0.0170	0.0342	-0.0087	-0.0113	0.0520	0.0272	0.0096
1682	34.0472	1.8566	0.0027	0.9885	0.0969	0.0219	-0.0347	-0.0122	0.0214	0.0370	-0.0096	-0.0133	0.0612	0.0330	0.0088
1683	9.7189	0.5294	0.0022	1.0064	0.0247	0.0002	-0.0014	-0.0021	0.0022	0.0119	-0.0031	-0.0012	-0.0125	0.0045	0.0034
1684	7.4350	0.4049	0.0022	1.0071	0.0188	-0.0021	0.0011	-0.0002	0.0012	0.0092	-0.0023	-0.0007	-0.0101	0.0029	0.0035
1685	11.8102	0.6433	0.0023	1.0057	0.0308	0.0049	-0.0074	-0.0014	0.0040	0.0139	-0.0035	-0.0018	-0.0130	0.0068	0.0048
1686	8.7933	0.4789	0.0022	1.0067	0.0224	0.0010	-0.0029	0.0003	0.0024	0.0105	-0.0026	-0.0011	-0.0103	0.0044	0.0045
1687	24.1167	1.3140	0.0020	0.9978	0.0587	-0.0019	0.0045	-0.0282	0.0053	0.0305	-0.0090	-0.0067	-0.0042	0.0141	-0.0059
1688	26.6845	1.4547	0.0028	0.9963	0.0775	0.0123	-0.0147	-0.0301	0.0133	0.0311	-0.0092	-0.0112	0.0399	0.0241	-0.0060
1689	21.9654	1.1965	0.0017	0.9992	0.0498	-0.0061	0.0061	-0.0163	0.0046	0.0274	-0.0076	-0.0053	-0.0029	0.0118	0.0005
1690	26.9783	1.4699	0.0018	0.9950	0.0616	0.0061	-0.0070	-0.0236	0.0090	0.0327	-0.0093	-0.0076	0.0010	0.0182	-0.0018
1691	40.2066	2.1922	0.0016	0.9797	0.0884	-0.0158	0.0129	-0.0196	0.0084	0.0498	-0.0133	-0.0090	-0.0042	0.0207	0.0074
1692	32.2876	1.7606	0.0028	0.9906	0.0933	-0.0298	0.0280	-0.0196	0.0059	0.0404	-0.0109	-0.0098	0.0348	0.0172	0.0036
1693	41.4575	2.2619	0.0027	0.9790	0.1184	-0.0314	0.0291	-0.0281	0.0091	0.0515	-0.0141	-0.0132	0.0466	0.0239	0.0027
1694	47.2856	2.5806	0.0024	0.9700	0.1275	0.0039	-0.0175	-0.0177	0.0226	0.0539	-0.0140	-0.0169	0.0739	0.0386	0.0119
1695	29.5161	1.6085	0.0020	0.9927	0.0712	-0.0009	0.0036	-0.0336	0.0070	0.0371	-0.0109	-0.0083	-0.0043	0.0177	-0.0067
1696	32.1456	1.7528	0.0028	0.9908	0.0926	0.0115	-0.0142	-0.0353	0.0152	0.0377	-0.0111	-0.0132	0.0470	0.0281	-0.0066
1697	26.1881	1.4267	0.0016	0.9956	0.0574	-0.0123	0.0100	-0.0108	0.0051	0.0324	-0.0085	-0.0056	-0.0030	0.0129	0.0060
1698	26.4126	1.4389	0.0016	0.9954	0.0576	-0.0119	0.0094	-0.0103	0.0054	0.0326	-0.0086	-0.0057	-0.0026	0.0132	0.0065
1699	9.5443	0.5198	0.0022	1.0065	0.0244	0.0019	-0.0039	-0.0004	0.0028	0.0114	-0.0028	-0.0012	-0.0111	0.0050	0.0044
1700	7.8313	0.4265	0.0022	1.0070	0.0200	0.0004	-0.0023	0.0012	0.0021	0.0093	-0.0022	-0.0009	-0.0091	0.0038	0.0046
1701	6.6757	0.3636	0.0022	1.0073	0.0172	-0.0004	-0.0017	0.0026	0.0018	0.0079	-0.0018	-0.0006	-0.0076	0.0030	0.0049
1702	7.3578	0.4008	0.0023	1.0072	0.0191	0.0004	-0.0027	0.0027	0.0021	0.0086	-0.0020	-0.0007	-0.0081	0.0036	0.0053
1703	10.1637	0.5537	0.0025	1.0065	0.0274	0.0049	-0.0085	0.0031	0.0041	0.0115	-0.0027	-0.0013	-0.0096	0.0061	0.0069
1704	10.2517	0.5585	0.0025	1.0065	0.0277	0.0050	-0.0087	0.0031	0.0041	0.0116	-0.0027	-0.0013	-0.0097	0.0062	0.0069
1705	10.1708	0.5540	0.0024	1.0065	0.0274	0.0048	-0.0085	0.0031	0.0040	0.0116	-0.0027	-0.0013	-0.0097	0.0061	0.0069
1706	9.1778	0.4999	0.0024	1.0068	0.0243	0.0030	-0.0062	0.0030	0.0033	0.0105	-0.0024	-0.0011	-0.0092	0.0052	0.0063
1707	9.1131	0.4964	0.0024	1.0068	0.0243	0.0034	-0.0066	0.0029	0.0034	0.0104	-0.0024	-0.0011	-0.0090	0.0052	0.0063
1708	10.4688	0.5703	0.0025	1.0065	0.0287	0.0061	-0.0100	0.0030	0.0045	0.0118	-0.0028	-0.0015	-0.0095	0.0066	0.0069
1709	8.8761	0.4835	0.0023	1.0068	0.0235	0.0025	-0.0056	0.0030	0.0031	0.0102	-0.0024	-0.0010	-0.0090	0.0049	0.0062
1710	9.0702	0.4941	0.0024	1.0068	0.0240	0.0029	-0.0061	0.0030	0.0033	0.0104	-0.0024	-0.0011	-0.0091	0.0051	0.0063
1711	5.0426	0.2747	0.0026	1.0080	0.0141	0.0036	-0.0056	0.0013	0.0023	0.0056	-0.0013	-0.0008	-0.0043	0.0034	0.0032
1712	4.0373	0.2199	0.0025	1.0081	0.0110	0.0024	-0.0039	0.0011	0.0017	0.0046	-0.0011	-0.0006	-0.0037	0.0026	0.0026
1713	4.1413	0.2256	0.0025	1.0081	0.0113	0.0024	-0.0040	0.0012	0.0018	0.0047	-0.0011	-0.0006	-0.0038	0.0026	0.0027
1714	6.2870	0.3425	0.0028	1.0080	0.0181	0.0056	-0.0081	0.0014	0.0032	0.0069	-0.0016	-0.0010	-0.0050	0.0045	0.0039
1715	6.9633	0.3793	0.0025	1.0075	0.0190	0.0038	-0.0064	0.0020	0.0029	0.0079	-0.0018	-0.0010	-0.0064	0.0043	0.0046
1716	6.5083	0.3545	0.0025	1.0076	0.0177	0.0038	-0.0061	0.0015	0.0027	0.0074	-0.0017	-0.0009	-0.0060	0.0041	0.0041
1717	6.3712	0.3471	0.0025	1.0076	0.0173	0.0037	-0.0060	0.0014	0.0027	0.0072	-0.0017	-0.0009	-0.0059	0.0040	0.0039
1718	7.2886	0.3970	0.0025	1.0074	0.0199	0.0043	-0.0069	0.0016	0.0031	0.0083	-0.0020	-0.0010	-0.0067	0.0046	0.0045
1719	31.7294	1.7299	0.0025	0.9910	0.0871	0.0104	-0.0199	-0.0141	0.0170	0.0356	-0.0094	-0.0119	0.0521	0.0279	0.0065
1720	30.2187	1.6473	0.0024	0.9925	0.0814	0.0038	-0.0140	-0.0073	0.0152	0.0339	-0.0086	-0.0106	0.0489	0.0251	0.0101
1721	29.4862	1.6073	0.0025	0.9933	0.0803	0.0076	-0.0168	-0.0107	0.0155	0.0331	-0.0086	-0.0108	0.0482	0.0254	0.0076
1722	31.6397	1.7251	0.0026	0.9912	0.0888	0.0171	-0.0270	-0.0155	0.0186	0.0350	-0.0093	-0.0124	0.0543	0.0297	0.0055
1723	25.9760	1.4151	0.0016	0.9957	0.0563	-0.0124	0.0093	-0.0080	0.0053	0.0319	-0.0083	-0.0054	-0.0023	0.0128	0.0077
1724	25.0149	1.3627	0.0016	0.9966	0.0541	-0.0149	0.0111	-0.0037	0.0048	0.0307	-0.0077	-0.0048	-0.0023	0.0116	0.0099
1725	24.3622	1.3271	0.0015	0.9971	0.0522	-0.0151	0.0075	0.0078	0.0057	0.0290	-0.0067	-0.0041	0.0010	0.0114	0.0169
1726	25.2091	1.3732	0.0015	0.9964	0.0535	-0.0133	0.0068	0.0032	0.0060	0.0302	-0.0072	-0.0046	0.0005	0.0123	0.0144

Sum of Residuals	-1.7303E-10
Sum of Squared Residuals	579124
Predicted Residual SS (PRESS)	585999


Fit Diagnostics for Weight
Residual
Predicted Value
RStudent
Predicted Value
RStudent
Leverage
Residual
Quantile
Weight
Predicted Value
Cook's D
Observation
Percent
Residual
Fit–Mean
Residual
Proportion Less
Observations 1725
Parameters 10
Error DF 1715
MSE 337.68
R-Square 0.4278
Adj R-Square 0.4248


Residual by Regressors for Weight
Residual
Height
Age
FAVC_dummy
FCVC
CAEC_dummy
SCC_dummy



Stepwise Regression Model family = no

Model: MODEL1
Dependent Variable: Weight

C(p) Selection Method

Number of Observations Read	385
Number of Observations Used	385

Number in Model	C(p)	R-Square	Variables in Model
7	7.8998	0.5260	Height Age FCVC CAEC_dummy SCC_dummy TUE MTRANS_dummy
8	8.1805	0.5281	Height Age FCVC CAEC_dummy SMOKE_dummy SCC_dummy TUE MTRANS_dummy
8	8.3702	0.5279	Height Age FCVC CAEC_dummy SCC_dummy FAF TUE MTRANS_dummy
9	8.7336	0.5299	Height Age FCVC CAEC_dummy SMOKE_dummy SCC_dummy FAF TUE MTRANS_dummy
6	9.4316	0.5215	Height Age CAEC_dummy SCC_dummy TUE MTRANS_dummy
8	9.4790	0.5265	Height Age FCVC CAEC_dummy SCC_dummy TUE CALC_dummy MTRANS_dummy
9	9.5482	0.5289	Height Age FCVC CAEC_dummy SMOKE_dummy SCC_dummy TUE CALC_dummy MTRANS_dummy
7	9.7070	0.5237	Height Age CAEC_dummy SMOKE_dummy SCC_dummy TUE MTRANS_dummy
7	9.7233	0.5237	Height Age CAEC_dummy SCC_dummy FAF TUE MTRANS_dummy
8	9.7507	0.5261	Height Age FAVC_dummy FCVC CAEC_dummy SCC_dummy TUE MTRANS_dummy
9	9.9880	0.5284	Height Age FCVC CAEC_dummy SCC_dummy FAF TUE CALC_dummy MTRANS_dummy
9	10.0623	0.5283	Height Age FAVC_dummy FCVC CAEC_dummy SMOKE_dummy SCC_dummy TUE MTRANS_dummy
8	10.0862	0.5257	Height Age CAEC_dummy SMOKE_dummy SCC_dummy FAF TUE MTRANS_dummy
10	10.1529	0.5307	Height Age FCVC CAEC_dummy SMOKE_dummy SCC_dummy FAF TUE CALC_dummy MTRANS_dummy
9	10.2763	0.5280	Height Age FAVC_dummy FCVC CAEC_dummy SCC_dummy FAF TUE MTRANS_dummy
10	10.6622	0.5300	Height Age FAVC_dummy FCVC CAEC_dummy SMOKE_dummy SCC_dummy FAF TUE MTRANS_dummy
6	10.8932	0.5197	Height Age FCVC CAEC_dummy SCC_dummy MTRANS_dummy
5	10.9657	0.5171	Height Age CAEC_dummy SCC_dummy MTRANS_dummy
7	11.0543	0.5220	Height Age FAVC_dummy CAEC_dummy SCC_dummy TUE MTRANS_dummy
7	11.1774	0.5218	Height Age CAEC_dummy SCC_dummy TUE CALC_dummy MTRANS_dummy
9	11.2352	0.5268	Height Age FAVC_dummy FCVC CAEC_dummy SCC_dummy TUE CALC_dummy MTRANS_dummy
6	11.2781	0.5192	Height Age CAEC_dummy SCC_dummy FAF MTRANS_dummy
8	11.2848	0.5242	Height Age CAEC_dummy SMOKE_dummy SCC_dummy TUE CALC_dummy MTRANS_dummy
10	11.3255	0.5292	Height Age FAVC_dummy FCVC CAEC_dummy SMOKE_dummy SCC_dummy TUE CALC_dummy MTRANS_dummy
7	11.3422	0.5216	Height Age FCVC CAEC_dummy SCC_dummy FAF MTRANS_dummy
7	11.3743	0.5216	Height Age FCVC CAEC_dummy SMOKE_dummy SCC_dummy MTRANS_dummy
8	11.3796	0.5241	Height Age FAVC_dummy CAEC_dummy SMOKE_dummy SCC_dummy TUE MTRANS_dummy
6	11.4160	0.5190	Height Age CAEC_dummy SMOKE_dummy SCC_dummy MTRANS_dummy
8	11.4474	0.5240	Height Age FAVC_dummy CAEC_dummy SCC_dummy FAF TUE MTRANS_dummy
8	11.4969	0.5240	Height Age CAEC_dummy SCC_dummy FAF TUE CALC_dummy MTRANS_dummy
9	11.7038	0.5262	Height Age CAEC_dummy SMOKE_dummy SCC_dummy FAF TUE CALC_dummy MTRANS_dummy
7	11.8114	0.5210	Height Age CAEC_dummy SMOKE_dummy SCC_dummy FAF MTRANS_dummy
10	11.8202	0.5286	Height Age FAVC_dummy FCVC CAEC_dummy SCC_dummy FAF TUE CALC_dummy MTRANS_dummy
9	11.8497	0.5260	Height Age FAVC_dummy CAEC_dummy SMOKE_dummy SCC_dummy FAF TUE MTRANS_dummy
8	11.9011	0.5234	Height Age FCVC CAEC_dummy SMOKE_dummy SCC_dummy FAF MTRANS_dummy
11	12.0000	0.5309	Height Age FAVC_dummy FCVC CAEC_dummy SMOKE_dummy SCC_dummy FAF TUE CALC_dummy MTRANS_dummy
7	12.2187	0.5205	Height Age FCVC CAEC_dummy SCC_dummy CALC_dummy MTRANS_dummy
8	12.4462	0.5228	Height Age FCVC CAEC_dummy SMOKE_dummy SCC_dummy CALC_dummy MTRANS_dummy
6	12.5003	0.5177	Height Age CAEC_dummy SCC_dummy CALC_dummy MTRANS_dummy
7	12.6547	0.5200	Height Age FCVC CAEC_dummy SMOKE_dummy SCC_dummy TUE

6	12.6738	0.5174	Height Age FCVC CAEC_dummy SCC_dummy TUE
8	12.6781	0.5225	Height Age FAVC_dummy CAEC_dummy SCC_dummy TUE CALC_dummy MTRANS_dummy
6	12.6815	0.5174	Height Age FCVC CAEC_dummy TUE MTRANS_dummy
8	12.7175	0.5224	Height Age FCVC CAEC_dummy SCC_dummy FAF CALC_dummy MTRANS_dummy
7	12.7350	0.5199	Height Age CAEC_dummy SMOKE_dummy SCC_dummy CALC_dummy MTRANS_dummy
9	12.8138	0.5248	Height Age FAVC_dummy CAEC_dummy SMOKE_dummy SCC_dummy TUE CALC_dummy MTRANS_dummy
7	12.8495	0.5197	Height Age CAEC_dummy SCC_dummy FAF CALC_dummy MTRANS_dummy
6	12.8831	0.5172	Height Age FAVC_dummy CAEC_dummy SCC_dummy MTRANS_dummy
7	12.8888	0.5197	Height Age FAVC_dummy FCVC CAEC_dummy SCC_dummy MTRANS_dummy
5	12.9996	0.5145	Height Age CAEC_dummy TUE MTRANS_dummy
9	13.0368	0.5245	Height Age FCVC CAEC_dummy SMOKE_dummy SCC_dummy FAF CALC_dummy MTRANS_dummy
9	13.1213	0.5244	Height Age FAVC_dummy CAEC_dummy SCC_dummy FAF TUE CALC_dummy MTRANS_dummy
8	13.1800	0.5218	Height Age CAEC_dummy SMOKE_dummy SCC_dummy FAF CALC_dummy MTRANS_dummy
7	13.1853	0.5193	Height Age FCVC CAEC_dummy SMOKE_dummy TUE MTRANS_dummy
7	13.2387	0.5192	Height Age FAVC_dummy CAEC_dummy SCC_dummy FAF MTRANS_dummy
8	13.3421	0.5216	Height Age FAVC_dummy FCVC CAEC_dummy SCC_dummy FAF MTRANS_dummy
10	13.3489	0.5267	Height Age FAVC_dummy CAEC_dummy SMOKE_dummy SCC_dummy FAF TUE CALC_dummy MTRANS_dummy
7	13.3531	0.5191	Height Age FCVC CAEC_dummy SCC_dummy FAF TUE
7	13.3582	0.5191	Height Age FAVC_dummy CAEC_dummy SMOKE_dummy SCC_dummy MTRANS_dummy
8	13.3738	0.5216	Height Age FAVC_dummy FCVC CAEC_dummy SMOKE_dummy SCC_dummy MTRANS_dummy
8	13.4126	0.5215	Height Age FCVC CAEC_dummy SMOKE_dummy SCC_dummy FAF TUE
6	13.4813	0.5164	Height Age CAEC_dummy SMOKE_dummy TUE MTRANS_dummy
7	13.6991	0.5187	Height Age FCVC CAEC_dummy FAF TUE MTRANS_dummy
8	13.7235	0.5212	Height Age FCVC CAEC_dummy SMOKE_dummy SCC_dummy TUE CALC_dummy
8	13.7874	0.5211	Height Age FAVC_dummy CAEC_dummy SMOKE_dummy SCC_dummy FAF MTRANS_dummy
6	13.8588	0.5159	Height Age CAEC_dummy FAF TUE MTRANS_dummy
9	13.8980	0.5234	Height Age FAVC_dummy FCVC CAEC_dummy SMOKE_dummy SCC_dummy FAF MTRANS_dummy
7	14.0174	0.5183	Height Age FCVC CAEC_dummy SCC_dummy TUE CALC_dummy
7	14.1387	0.5181	Height Age FAVC_dummy FCVC CAEC_dummy SCC_dummy TUE
8	14.1767	0.5206	Height Age FAVC_dummy FCVC CAEC_dummy SCC_dummy CALC_dummy MTRANS_dummy
8	14.1945	0.5206	Height Age FAVC_dummy FCVC CAEC_dummy SMOKE_dummy SCC_dummy TUE
7	14.2482	0.5180	Height Age FCVC CAEC_dummy TUE CALC_dummy MTRANS_dummy
8	14.2715	0.5205	Height Age FCVC CAEC_dummy SMOKE_dummy FAF TUE MTRANS_dummy
7	14.3281	0.5179	Height Age FAVC_dummy CAEC_dummy SCC_dummy CALC_dummy MTRANS_dummy
9	14.4140	0.5228	Height Age FAVC_dummy FCVC CAEC_dummy SMOKE_dummy SCC_dummy CALC_dummy MTRANS_dummy
7	14.4156	0.5178	Height Age CAEC_dummy SMOKE_dummy FAF TUE MTRANS_dummy
9	14.5346	0.5226	Height Age FCVC CAEC_dummy SMOKE_dummy SCC_dummy FAF TUE CALC_dummy
8	14.5529	0.5201	Height Age FCVC CAEC_dummy SMOKE_dummy TUE CALC_dummy MTRANS_dummy
8	14.5827	0.5201	Height Age FAVC_dummy CAEC_dummy SMOKE_dummy SCC_dummy CALC_dummy MTRANS_dummy
6	14.6165	0.5150	Height Age CAEC_dummy SMOKE_dummy SCC_dummy TUE
5	14.6523	0.5124	Height Age CAEC_dummy SCC_dummy TUE
7	14.6807	0.5174	Height Age FAVC_dummy FCVC CAEC_dummy TUE MTRANS_dummy
9	14.7029	0.5224	Height Age FAVC_dummy FCVC CAEC_dummy SCC_dummy FAF CALC_dummy MTRANS_dummy
6	14.7094	0.5149	Height Age CAEC_dummy TUE CALC_dummy MTRANS_dummy
8	14.7378	0.5199	Height Age FCVC CAEC_dummy SCC_dummy FAF TUE CALC_dummy
8	14.7465	0.5199	Height Age FAVC_dummy CAEC_dummy SCC_dummy FAF CALC_dummy MTRANS_dummy
8	14.9122	0.5197	Height Age FAVC_dummy FCVC CAEC_dummy SCC_dummy FAF TUE
6	14.9623	0.5146	Height Age FAVC_dummy CAEC_dummy TUE MTRANS_dummy
7	15.0240	0.5170	Height Age CAEC_dummy SMOKE_dummy TUE CALC_dummy MTRANS_dummy
10	15.0271	0.5245	Height Age FAVC_dummy FCVC CAEC_dummy SMOKE_dummy SCC_dummy FAF CALC_dummy MTRANS_dummy
9	15.0360	0.5220	Height Age FAVC_dummy FCVC CAEC_dummy SMOKE_dummy SCC_dummy FAF TUE
9	15.0425	0.5220	Height Age FAVC_dummy FCVC CAEC_dummy SMOKE_dummy SCC_dummy TUE CALC_dummy
9	15.0902	0.5219	Height Age FAVC_dummy CAEC_dummy SMOKE_dummy SCC_dummy FAF CALC_dummy MTRANS_dummy
6	15.1611	0.5143	Height Age CAEC_dummy SCC_dummy FAF TUE
8	15.1799	0.5193	Height Age FAVC_dummy FCVC CAEC_dummy SMOKE_dummy TUE MTRANS_dummy
7	15.2095	0.5168	Height Age CAEC_dummy SMOKE_dummy SCC_dummy FAF TUE
8	15.2788	0.5192	Height Age FAVC_dummy FCVC CAEC_dummy SCC_dummy TUE CALC_dummy
4	15.2880	0.5091	Height Age CAEC_dummy MTRANS_dummy
8	15.2968	0.5192	Height Age FCVC CAEC_dummy FAF TUE CALC_dummy MTRANS_dummy
7	15.4598	0.5165	Height Age FAVC_dummy CAEC_dummy SMOKE_dummy TUE MTRANS_dummy
7	15.5913	0.5163	Height Age CAEC_dummy FAF TUE CALC_dummy MTRANS_dummy
9	15.6799	0.5212	Height Age FCVC CAEC_dummy SMOKE_dummy FAF TUE CALC_dummy MTRANS_dummy
8	15.6880	0.5187	Height Age FAVC_dummy FCVC CAEC_dummy FAF TUE MTRANS_dummy
6	15.6915	0.5136	Height Age FAVC_dummy CAEC_dummy SCC_dummy TUE
7	15.7573	0.5161	Height Age FAVC_dummy CAEC_dummy SMOKE_dummy SCC_dummy TUE
7	15.8482	0.5160	Height Age FAVC_dummy CAEC_dummy FAF TUE MTRANS_dummy
7	15.9494	0.5158	Height Age CAEC_dummy SMOKE_dummy SCC_dummy TUE CALC_dummy
10	15.9605	0.5234	Height Age FAVC_dummy FCVC CAEC_dummy SMOKE_dummy SCC_dummy FAF TUE CALC_dummy
5	15.9628	0.5108	Height Age CAEC_dummy SMOKE_dummy MTRANS_dummy
8	15.9904	0.5183	Height Age CAEC_dummy SMOKE_dummy FAF TUE CALC_dummy MTRANS_dummy
9	16.1156	0.5207	Height Age FAVC_dummy FCVC CAEC_dummy SCC_dummy FAF TUE CALC_dummy

Stepwise Regression Model family = no

Model: MODEL1
Dependent Variable: Weight

Number of Observations Read	385
Number of Observations Used	385

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	7	40619	5802.73179	59.76	<.0001
Error	377	36610	97.10745		
Corrected Total	384	77229			

Root MSE	9.85431	R-Square	0.5260
Dependent Mean	59.04114	Adj R-Sq	0.5172
Coeff Var	16.69058		

Parameter Estimates								
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	Variance Inflation	95% Confidence Limits	
Intercept	1	-66.95679	10.11040	-6.62	<.0001	0	-86.83664	-47.07694
Height	1	74.18824	5.54418	13.38	<.0001	1.09255	63.28685	85.08964
Age	1	0.81364	0.10553	7.71	<.0001	1.37547	0.60614	1.02114
FCVC	1	-1.61710	0.86035	-1.88	0.0609	1.14331	-3.30879	0.07460
CAEC_dummy	1	-4.55510	0.73880	-6.17	<.0001	1.04671	-6.00779	-3.10241
SCC_dummy	1	4.06000	1.55883	2.60	0.0096	1.07009	0.99491	7.12509
TUE	1	-1.77862	0.79584	-2.23	0.0260	1.12109	-3.34346	-0.21377
MTRANS_dummy	1	-1.41271	0.54271	-2.60	0.0096	1.32816	-2.47984	-0.34558

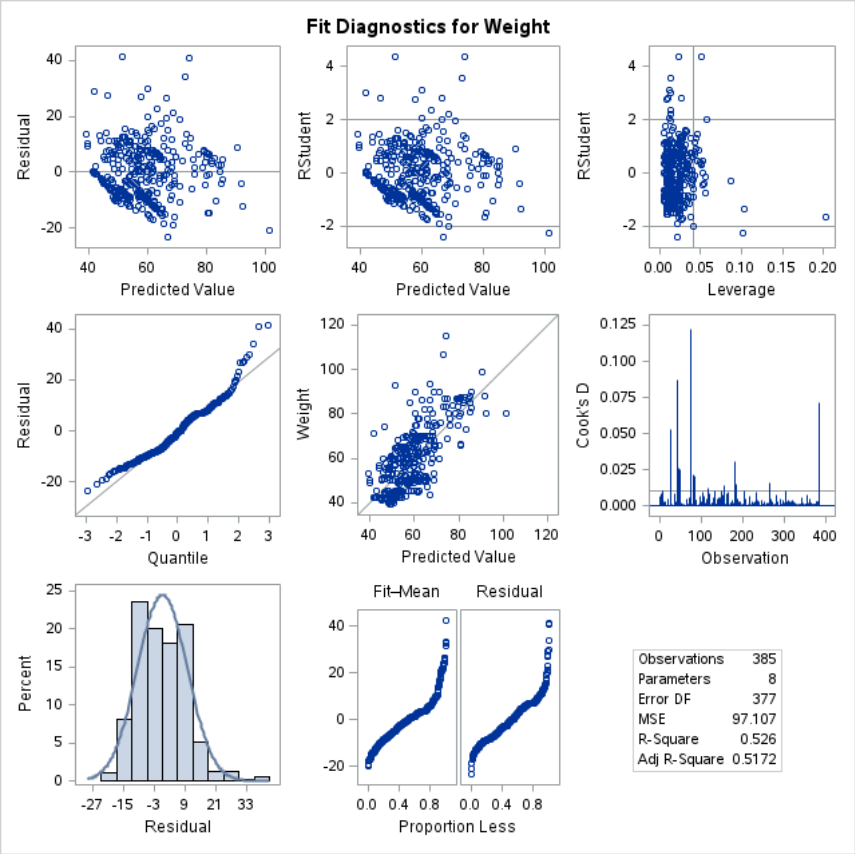
Stepwise Regression Model family = no

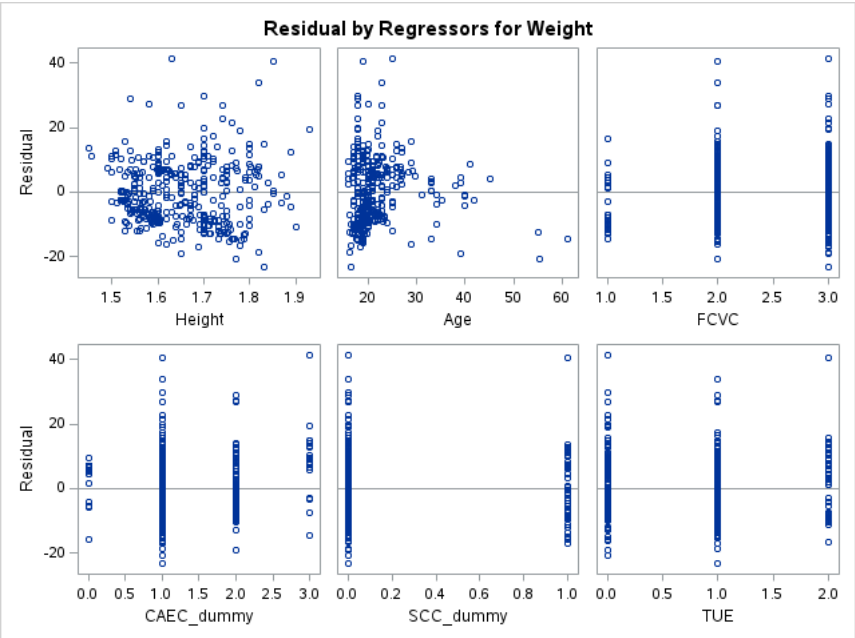
Model: MODEL1
Dependent Variable: Weight

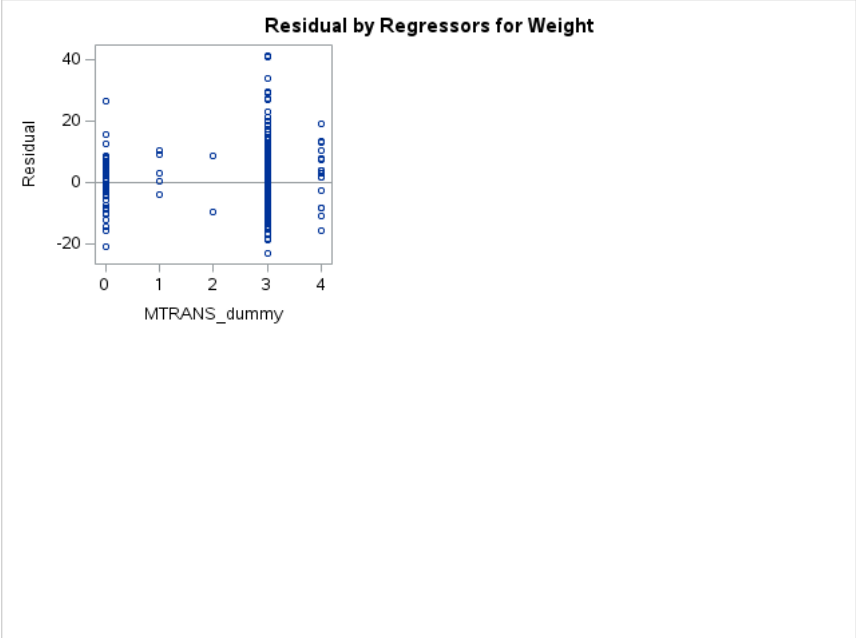
Output Statistics													
						DFBETAS							
Obs	Residual	RStudent	Hat Diag H	Cov Ratio	DFFITS	Intercept	Height	Age	FCVC	CAEC_dummy	SCC_dummy	TUE	MTRANS_dummy
1	13.5069	1.3924	0.0286	1.0092	0.2390	-0.1690	0.1325	0.1019	0.0722	-0.0504	-0.0104	-0.0516	0.1590
2	18.8291	1.9303	0.0131	0.9565	0.2223	-0.1083	0.1381	-0.0011	-0.0622	-0.0283	-0.0101	-0.1197	0.0695
3	-16.0344	-1.6504	0.0235	0.9874	-0.2561	-0.1175	0.0798	-0.0130	0.0623	0.0216	0.0320	0.0583	0.1809
4	-7.5846	-0.7724	0.0081	1.0168	-0.0698	-0.0133	0.0060	-0.0046	0.0306	0.0103	0.0130	0.0443	-0.0193
5	-3.7094	-0.3777	0.0089	1.0275	-0.0357	0.0041	-0.0024	-0.0003	-0.0183	0.0117	0.0108	0.0148	-0.0083
6	8.6266	0.8952	0.0443	1.0507	0.1926	-0.0514	0.0352	0.1308	-0.0160	-0.0233	0.0121	0.0584	-0.0372
7	15.6425	1.6159	0.0309	0.9973	0.2887	0.1923	-0.1616	0.0195	-0.0691	-0.0199	-0.0436	-0.0525	-0.1892
8	-4.3351	-0.4462	0.0301	1.0488	-0.0787	-0.0393	0.0270	0.0199	0.0150	-0.0270	0.0112	-0.0135	0.0652
9	10.6042	1.0885	0.0221	1.0186	0.1637	-0.0405	0.0136	0.0761	-0.0068	-0.0283	-0.0022	0.1128	0.0883
10	8.9667	0.9237	0.0300	1.0341	0.1624	-0.0113	0.0282	0.0393	-0.1098	0.0673	0.0110	0.0142	-0.0404
11	7.3350	0.7505	0.0176	1.0274	0.1003	-0.0608	0.0505	0.0461	-0.0144	-0.0165	0.0022	0.0158	0.0726
12	4.4553	0.4626	0.0467	1.0666	0.1024	-0.0470	0.0293	0.0858	-0.0195	-0.0106	0.0072	-0.0135	0.0559
13	5.2286	0.5332	0.0117	1.0273	0.0579	0.0054	-0.0018	0.0012	-0.0290	0.0331	-0.0089	-0.0334	0.0130
14	-8.2968	-0.8565	0.0345	1.0416	-0.1618	-0.0126	0.0191	-0.0447	0.0599	0.0129	-0.1201	0.0435	-0.0717
15	-8.8034	-0.8971	0.0089	1.0132	-0.0850	-0.0362	0.0264	0.0027	0.0370	0.0112	0.0191	0.0521	-0.0153
16	1.6021	0.1639	0.0185	1.0401	0.0225	-0.0045	0.0034	0.0060	-0.0092	0.0099	-0.0016	-0.0106	0.0143
17	1.4449	0.1490	0.0339	1.0568	0.0279	-0.0068	0.0124	-0.0007	-0.0155	-0.0109	0.0014	-0.0118	0.0058
18	-3.0940	-0.3154	0.0113	1.0310	-0.0338	-0.0210	0.0182	0.0002	0.0139	0.0038	0.0080	0.0178	-0.0042
19	-8.8091	-0.9128	0.0413	1.0467	-0.1894	-0.1427	0.1002	0.0775	0.0360	0.0072	0.0368	0.0455	0.1499
20	-4.2239	-0.4332	0.0232	1.0416	-0.0668	0.0084	0.0042	-0.0183	-0.0357	0.0183	0.0091	-0.0547	-0.0080
21	8.1102	0.8322	0.0227	1.0299	0.1267	0.0099	-0.0206	-0.0028	0.0130	0.1006	-0.0284	-0.0397	0.0127
22	-2.0488	-0.2107	0.0289	1.0509	-0.0364	-0.0109	0.0022	0.0133	0.0098	-0.0137	0.0046	0.0114	0.0286
23	0.0794	0.008071	0.0049	1.0265	0.0006	0.0001	-0.0000	-0.0000	-0.0002	-0.0001	-0.0001	0.0002	0.0001
24	-5.3653	-0.5483	0.0158	1.0312	-0.0694	-0.0018	-0.0058	-0.0042	0.0126	0.0489	0.0076	0.0294	-0.0159
25	-1.8447	-0.1893	0.0242	1.0460	-0.0298	0.0035	-0.0040	0.0026	-0.0051	0.0059	-0.0239	0.0071	-0.0028
26	-15.7614	-1.6347	0.0385	1.0038	-0.3269	0.0343	-0.0213	-0.0264	-0.0625	0.1773	-0.2095	0.0563	-0.1144
27	41.4437	4.3547	0.0229	0.7052	0.6660	-0.0468	-0.0451	0.1210	0.0678	0.5193	-0.1225	-0.1862	0.1400
28	13.1502	1.3543	0.0269	1.0096	0.2252	-0.0045	-0.0208	-0.0000	0.0195	0.1638	-0.0455	-0.0738	0.0831
29	-9.6272	-0.9818	0.0099	1.0108	-0.0981	-0.0106	0.0234	-0.0242	-0.0440	0.0309	0.0298	0.0330	-0.0272
30	-2.6962	-0.2753	0.0145	1.0349	-0.0334	-0.0159	0.0187	0.0020	-0.0075	-0.0127	0.0113	0.0116	-0.0015
31	-2.6962	-0.2753	0.0145	1.0349	-0.0334	-0.0159	0.0187	0.0020	-0.0075	-0.0127	0.0113	0.0116	-0.0015
32	4.4453	0.4522	0.0068	1.0240	0.0374	-0.0147	0.0145	0.0126	-0.0085	-0.0090	-0.0024	0.0105	0.0146
33	1.1368	0.1158	0.0098	1.0313	0.0115	-0.0034	0.0034	-0.0014	0.0059	-0.0036	-0.0031	-0.0049	0.0023
34	0.1630	0.0170	0.0526	1.0782	0.0040	0.0017	-0.0010	-0.0011	-0.0013	0.0011	0.0022	-0.0008	-0.0025
35	-2.8323	-0.2888	0.0119	1.0319	-0.0316	-0.0136	0.0144	-0.0120	0.0130	0.0040	0.0055	0.0142	-0.0098
36	-2.8323	-0.2888	0.0119	1.0319	-0.0316	-0.0136	0.0144	-0.0120	0.0130	0.0040	0.0055	0.0142	-0.0098
37	21.3163	2.1888	0.0135	0.9357	0.2559	-0.1549	0.1481	0.0142	0.1182	-0.0714	-0.0401	-0.0893	0.0776
38	7.6307	0.7774	0.0089	1.0175	0.0735	0.0065	0.0092	-0.0216	-0.0282	-0.0095	-0.0139	-0.0500	0.0100
39	-0.3284	-0.0337	0.0248	1.0474	-0.0054	0.0010	-0.0011	0.0005	-0.0009	0.0011	-0.0043	0.0013	-0.0005
40	12.2917	1.2573	0.0143	1.0021	0.1513	-0.0680	0.0321	0.0847	0.0826	-0.0493	-0.0188	0.0634	0.0582
41	-1.9144	-0.1949	0.0087	1.0296	-0.0182	-0.0049	0.0039	-0.0034	0.0080	0.0026	0.0034	0.0107	-0.0055
42	-14.5525	-1.6579	0.2029	1.2090	-0.8365	0.2003	0.0650	-0.7928	-0.0242	-0.1784	-0.0355	-0.2020	-0.3754
43	6.8569	0.6990	0.0104	1.0216	0.0718	-0.0199	0.0123	0.0330	-0.0253	0.0383	-0.0037	0.0160	0.0272
44	-3.3615	-0.3474	0.0383	1.0595	-0.0694	0.0480	-0.0442	-0.0058	-0.0100	-0.0409	0.0028	0.0177	-0.0178
45	26.7785	2.7793	0.0269	0.8921	0.4624	0.0394	0.0537	-0.1417	-0.0720	0.1642	-0.0369	0.0713	-0.3749
46	-0.9368	-0.0962	0.0260	1.0485	-0.0157	-0.0005	0.0010	-0.0053	-0.0049	0.0033	0.0020	0.0008	0.0081
47	7.1577	0.7317	0.0159	1.0262	0.0929	0.0233	-0.0124	-0.0005	-0.0183	-0.0646	-0.0140	-0.0395	0.0148
48	4.4526	0.4575	0.0266	1.0447	0.0756	0.0086	-0.0263	0.0245	0.0285	0.0155	-0.0124	0.0577	0.0071
49	5.8039	0.6005	0.0396	1.0554	0.1219	0.0362	-0.0316	-0.0145	0.0122	0.0738	-0.0225	-0.0181	-0.0773

376	9.2333	0.9412	0.0093	1.0119	0.0913	0.0139	-0.0210	0.0053	0.0431	-0.0289	-0.0305	-0.0349	0.0181
377	7.4316	0.7695	0.0404	1.0512	0.1580	0.0547	-0.0584	0.0083	-0.0262	-0.0169	0.1029	0.0844	-0.0062
378	7.1917	0.7438	0.0384	1.0498	0.1486	0.0409	-0.0445	0.0101	-0.0243	-0.0167	0.1015	0.0813	-0.0029
379	10.8188	1.1086	0.0187	1.0141	0.1530	0.0326	-0.0518	0.0574	-0.0098	-0.0267	-0.0136	0.1214	0.0217
380	9.4401	0.9644	0.0136	1.0152	0.1130	0.0276	-0.0198	0.0018	-0.0069	-0.0897	-0.0161	0.0243	0.0104
381	5.9748	0.6132	0.0239	1.0381	0.0959	0.0082	-0.0096	-0.0024	0.0141	-0.0188	0.0745	-0.0210	0.0077
382	9.9008	1.0173	0.0245	1.0243	0.1611	0.0263	-0.0301	-0.0013	0.0219	-0.0310	0.1218	-0.0337	0.0115
383	6.5111	0.6679	0.0227	1.0354	0.1019	-0.0068	0.0260	0.0016	-0.0198	-0.0098	-0.0042	-0.0267	-0.0646
384	12.6307	1.2998	0.0258	1.0116	0.2114	0.0270	-0.0455	0.0183	0.0504	-0.0466	0.1605	0.0633	0.0097
385	-20.9721	-2.2581	0.1021	1.0214	-0.7613	0.1586	-0.0316	-0.6720	0.1056	0.0627	-0.0560	-0.0287	-0.0694

Sum of Residuals	0
Sum of Squared Residuals	36610
Predicted Residual SS (PRESS)	38422






Residual by Regressors for Weight
Residual
40
20
0
-20
0
1
2
3
4
MTRANS_dummy