

Host

Notes

Output Created		12-JUL-2026 13:51:23
Comments		
Input	Data	D:\DATA ANALYSIS\H Regression Tests and Models\Simple Linear Regression\SPSS_Output\sav\Simple-Linear-Regression-analysis-data.sav
	Active Dataset	SimpleLinearRegressionData
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	649
Syntax		HOST COMMAND=["if not exist "D:\DATA ANALYSIS\H Regression Tests and Models\Standardized Beta Coefficients\SPSS_Output" mkdir "D:\DATA ANALYSIS\H Regression Tests and Models\Standardized Beta Coefficients\SPSS_Output""].
Resources	Processor Time	00:00:00.03
	Elapsed Time	00:00:00.06

Host

Notes

Output Created		12-JUL-2026 13:51:23
Comments		
Input	Data	D:\DATA ANALYSIS\H Regression Tests and Models\Simple Linear Regression\SPSS_Output\sav\Simple-Linear-Regression-analysis-data.sav
	Active Dataset	SimpleLinearRegressionData
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	649
	Syntax	HOST COMMAND=["if not exist "D:\DATA ANALYSIS\H Regression Tests and Models\Standardized Beta Coefficients\SPSS_Output\sav" mkdir "D:\DATA ANALYSIS\H Regression Tests and Models\Standardized Beta Coefficients\SPSS_Output\sav""].
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.06

Host

Notes

Output Created		12-JUL-2026 13:51:23
Comments		
Input	Data	D:\DATA ANALYSIS\H Regression Tests and Models\Simple Linear Regression\SPSS_Output\sav\Simple-Linear-Regression-analysis-data.sav
	Active Dataset	SimpleLinearRegressionData
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	649
Syntax		HOST COMMAND=["if not exist "D:\DATA ANALYSIS\H Regression Tests and Models\Standardized Beta Coefficients\SPSS_Output\spv" mkdir "D:\DATA ANALYSIS\H Regression Tests and Models\Standardized Beta Coefficients\SPSS_Output\spv""].
Resources	Processor Time	00:00:00.03
	Elapsed Time	00:00:00.07

Host

Notes

Output Created		12-JUL-2026 13:51:23
Comments		
Input	Data	D:\DATA ANALYSIS\H Regression Tests and Models\Simple Linear Regression\SPSS_Output\sav\Simple-Linear-Regression-analysis-data.sav
	Active Dataset	SimpleLinearRegressionData
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	649
	Syntax	HOST COMMAND=[if not exist "D:\DATA ANALYSIS\H Regression Tests and Models\Standardized Beta Coefficients\SPSS_Output\pdf" mkdir "D:\DATA ANALYSIS\H Regression Tests and Models\Standardized Beta Coefficients\SPSS_Output\pdf"].
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.04

Host

Notes

Output Created		12-JUL-2026 13:51:24
Comments		
Input	Data	D:\DATA ANALYSIS\H Regression Tests and Models\Simple Linear Regression\SPSS_Output\ sav\Simple-Linear- Regression-analysis-data. sav
	Active Dataset	SimpleLinearRegressionD ata
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	649
Syntax		HOST COMMAND=['del /Q "D:\DATA ANALYSIS\H Regression Tests and Models\Standardized Beta Coefficients\SPSS_Output \sav*.sav" 2>nul'].
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.05

Host

Notes

Output Created		12-JUL-2026 13:51:24
Comments		
Input	Data	D:\DATA ANALYSIS\H Regression Tests and Models\Simple Linear Regression\SPSS_Output\ sav\Simple-Linear- Regression-analysis-data. sav
	Active Dataset	SimpleLinearRegressionD ata
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	649
Syntax		HOST COMMAND=['del /Q "D:\DATA ANALYSIS\H Regression Tests and Models\Standardized Beta Coefficients\SPSS_Output \spv*.spv" 2>nul'].
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.05

Host

Notes

Output Created		12-JUL-2026 13:51:24
Comments		
Input	Data	D:\DATA ANALYSIS\H Regression Tests and Models\Simple Linear Regression\SPSS_Output\ sav\Simple-Linear- Regression-analysis-data. sav
	Active Dataset	SimpleLinearRegressionD ata
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	649
Syntax		HOST COMMAND=['del /Q "D:\DATA ANALYSIS\H Regression Tests and Models\Standardized Beta Coefficients\SPSS_Output \pdf*.pdf" 2>nul'].
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.05

Standardized Beta Coefficients

Standardized Beta Coefficients
Import dataset.csv

Standardized Beta Coefficients

Standardized Beta Coefficients
Descriptive statistics and correlations

Descriptives

Notes		
Output Created		12-JUL-2026 13:51:24
Comments		
Input	Data	D:\DATA ANALYSIS\H Regression Tests and Models\Standardized Beta Coefficients\SPSS_Output\sav\standardized_beta_coefficients_analysis_data.sav
	Active Dataset	StandardizedBetaData
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	649
Missing Value Handling	Definition of Missing	User defined missing values are treated as missing.
	Cases Used	All non-missing data are used.
Syntax		DESCRIPTIVES VARIABLES=G3 G1 G2 studytime failures absences age Medu Fedu /STATISTICS=MEAN STDDEV MIN MAX SKEWNESS KURTOSIS.
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.01

[StandardizedBetaData] D:\DATA ANALYSIS\H Regression Tests and Models\Standardized Beta Coefficients\SPSS_Output\sav\standardized_beta_coefficients_analysis_data.sav

Standardized Beta Coefficients
Descriptive statistics and correlations

Descriptive Statistics

	N Statistic	Minimum Statistic	Maximum Statistic	Mean Statistic	Std. Deviation Statistic	Skewness Statistic
Final grade outcome	649	.00	19.00	11.9060	3.23066	-.913
First-period grade predictor	649	.00	19.00	11.3991	2.74527	-.003
Second-period grade predictor	649	.00	19.00	11.5701	2.91364	-.360
Weekly study-time category	649	1.00	4.00	1.9307	.82951	.700
Past class failures	649	.00	3.00	.2219	.59324	3.093
School absences	649	.00	32.00	3.6595	4.64076	2.021
Student age	649	15.00	22.00	16.7442	1.21814	.417
Mother education	649	.00	4.00	2.5146	1.13455	-.030
Father education	649	.00	4.00	2.3066	1.09993	.215
Valid N (listwise)	649					

Descriptive Statistics

	Skewness	Kurtosis	
	Std. Error	Statistic	Std. Error
Final grade outcome	.096	2.712	.192
First-period grade predictor	.096	.037	.192
Second-period grade predictor	.096	1.662	.192
Weekly study-time category	.096	.038	.192
Past class failures	.096	9.824	.192
School absences	.096	5.781	.192
Student age	.096	.072	.192
Mother education	.096	-1.261	.192
Father education	.096	-1.109	.192
Valid N (listwise)			

Correlations

Standardized Beta Coefficients
Descriptive statistics and correlations

Notes

Output Created		12-JUL-2026 13:51:24
Comments		
Input	Data	D:\DATA ANALYSIS\H Regression Tests and Models\Standardized Beta Coefficients\SPSS_Output \sav\standardized_beta_c oefficients_analysis_data. sav
	Active Dataset	StandardizedBetaData
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	649
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each pair of variables are based on all the cases with valid data for that pair.
Syntax		CORRELATIONS /VARIABLES=G3 G1 G2 studytime failures absences age Medu Fedu /PRINT=TWOTAIL SIG /MISSING=PAIRWISE.
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.02

Standardized Beta Coefficients
Descriptive statistics and correlations

Correlations

		Final grade outcome	First-period grade predictor	Second-period grade predictor
Final grade outcome	Pearson Correlation	1	.826	.919
	Sig. (2-tailed)		.000	.000
	N	649	649	649
First-period grade predictor	Pearson Correlation	.826	1	.865
	Sig. (2-tailed)	.000		.000
	N	649	649	649
Second-period grade predictor	Pearson Correlation	.919	.865	1
	Sig. (2-tailed)	.000	.000	
	N	649	649	649
Weekly study-time category	Pearson Correlation	.250	.261	.240
	Sig. (2-tailed)	.000	.000	.000
	N	649	649	649
Past class failures	Pearson Correlation	-.393	-.384	-.386
	Sig. (2-tailed)	.000	.000	.000
	N	649	649	649
School absences	Pearson Correlation	-.091	-.147	-.125
	Sig. (2-tailed)	.020	.000	.001
	N	649	649	649
Student age	Pearson Correlation	-.107	-.174	-.107
	Sig. (2-tailed)	.007	.000	.006
	N	649	649	649
Mother education	Pearson Correlation	.240	.260	.264
	Sig. (2-tailed)	.000	.000	.000
	N	649	649	649
Father education	Pearson Correlation	.212	.218	.225
	Sig. (2-tailed)	.000	.000	.000
	N	649	649	649

Standardized Beta Coefficients
Descriptive statistics and correlations

Correlations

		Weekly study- time category	Past class failures	School absences
Final grade outcome	Pearson Correlation	.250	-.393	-.091
	Sig. (2-tailed)	.000	.000	.020
	N	649	649	649
First-period grade predictor	Pearson Correlation	.261	-.384	-.147
	Sig. (2-tailed)	.000	.000	.000
	N	649	649	649
Second-period grade predictor	Pearson Correlation	.240	-.386	-.125
	Sig. (2-tailed)	.000	.000	.001
	N	649	649	649
Weekly study-time category	Pearson Correlation	1	-.147	-.118
	Sig. (2-tailed)		.000	.003
	N	649	649	649
Past class failures	Pearson Correlation	-.147	1	.123
	Sig. (2-tailed)	.000		.002
	N	649	649	649
School absences	Pearson Correlation	-.118	.123	1
	Sig. (2-tailed)	.003	.002	
	N	649	649	649
Student age	Pearson Correlation	-.008	.320	.150
	Sig. (2-tailed)	.831	.000	.000
	N	649	649	649
Mother education	Pearson Correlation	.097	-.172	-.009
	Sig. (2-tailed)	.013	.000	.827
	N	649	649	649
Father education	Pearson Correlation	.050	-.166	.030
	Sig. (2-tailed)	.200	.000	.448
	N	649	649	649

Standardized Beta Coefficients
Descriptive statistics and correlations

Correlations

		Student age	Mother education	Father education
Final grade outcome	Pearson Correlation	-.107	.240	.212
	Sig. (2-tailed)	.007	.000	.000
	N	649	649	649
First-period grade predictor	Pearson Correlation	-.174	.260	.218
	Sig. (2-tailed)	.000	.000	.000
	N	649	649	649
Second-period grade predictor	Pearson Correlation	-.107	.264	.225
	Sig. (2-tailed)	.006	.000	.000
	N	649	649	649
Weekly study-time category	Pearson Correlation	-.008	.097	.050
	Sig. (2-tailed)	.831	.013	.200
	N	649	649	649
Past class failures	Pearson Correlation	.320	-.172	-.166
	Sig. (2-tailed)	.000	.000	.000
	N	649	649	649
School absences	Pearson Correlation	.150	-.009	.030
	Sig. (2-tailed)	.000	.827	.448
	N	649	649	649
Student age	Pearson Correlation	1	-.108	-.121
	Sig. (2-tailed)		.006	.002
	N	649	649	649
Mother education	Pearson Correlation	-.108	1	.647
	Sig. (2-tailed)	.006		.000
	N	649	649	649
Father education	Pearson Correlation	-.121	.647	1
	Sig. (2-tailed)	.002	.000	
	N	649	649	649

Standardized Beta Coefficients

>Warning # 2004. Command name: SUBTITLE

>The subtitle given exceeds 60 characters in length. The first 60 characters
>will be used.

Standardized Beta Coefficients
Primary model with standardized Beta, partial and part corre

Regression

Notes

Output Created		12-JUL-2026 13:51:24
Comments		
Input	Data	D:\DATA ANALYSIS\H Regression Tests and Models\Standardized Beta Coefficients\SPSS_Output \sav\standardized_beta_c oefficients_analysis_data. sav
	Active Dataset	StandardizedBetaData
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	649
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any variable used.
Syntax		REGRESSION /MISSING LISTWISE /STATISTICS COEFF OUTS R ANOVA CHANGE CI(95) COLLIN TOL ZPP /CRITERIA=PIN(.05) POUT(.10) TOLERANCE(. 0001) /NOORIGIN /DEPENDENT G3 /METHOD=ENTER G1 G2 studytime failures absences age Medu Fedu /SAVE PRED(beta_pred) RESID(beta_resid) ZPRED(beta_zpred) ZRESID(beta_zresid) COOK(beta_cook) ...

Standardized Beta Coefficients
Primary model with standardized Beta, partial and part corre

Notes

Resources	Processor Time	00:00:00.03
	Elapsed Time	00:00:00.05
	Memory Required	8400 bytes
	Additional Memory Required for Residual Plots	0 bytes
Variables Created or Modified	beta_pred	Unstandardized Predicted Value
	beta_resid	Unstandardized Residual
	beta_zpred	Standardized Predicted Value
	beta_zresid	Standardized Residual
	beta_cook	Cook's Distance
	beta_lev	Centered Leverage Value

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Father education, School absences, Weekly study-time category, Student age, Second-period grade predictor, Past class failures, Mother education, First-period grade predictor ^b	.	Enter

a. Dependent Variable: Final grade outcome

b. All requested variables entered.

Standardized Beta Coefficients
Primary model with standardized Beta, partial and part corre

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics		
					R Square Change	F Change	df1
1	.922 ^a	.851	.849	1.25576	.851	456.111	8

Model Summary^b

Model	Change Statistics	
	df2	Sig. F Change
1	640	.000

a. Predictors: (Constant), Father education, School absences, Weekly study-time category, Student age, Second-period grade predictor, Past class failures, Mother education, First-period grade predictor

b. Dependent Variable: Final grade outcome

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5754.033	8	719.254	456.111	.000 ^b
	Residual	1009.234	640	1.577		
	Total	6763.267	648			

a. Dependent Variable: Final grade outcome

b. Predictors: (Constant), Father education, School absences, Weekly study-time category, Student age, Second-period grade predictor, Past class failures, Mother education, First-period grade predictor

Standardized Beta Coefficients
Primary model with standardized Beta, partial and part corre

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.501	.774		-.648	.518
	First-period grade predictor	.143	.037	.122	3.910	.000
	Second-period grade predictor	.885	.034	.798	25.744	.000
	Weekly study-time category	.097	.062	.025	1.556	.120
	Past class failures	-.235	.095	-.043	-2.471	.014
	School absences	.023	.011	.033	2.085	.038
	Student age	.023	.044	.009	.520	.604
	Mother education	-.045	.058	-.016	-.776	.438
	Father education	.022	.059	.007	.371	.711

Coefficients^a

Model		95.0% Confidence Interval for B		Correlations		
		Lower Bound	Upper Bound	Zero-order	Partial	Part
1	(Constant)	-2.021	1.019			
	First-period grade predictor	.071	.215	.826	.153	.060
	Second-period grade predictor	.817	.952	.919	.713	.393
	Weekly study-time category	-.025	.219	.250	.061	.024
	Past class failures	-.422	-.048	-.393	-.097	-.038
	School absences	.001	.044	-.091	.082	.032
	Student age	-.063	.108	-.107	.021	.008
	Mother education	-.159	.069	.240	-.031	-.012
	Father education	-.094	.139	.212	.015	.006

Standardized Beta Coefficients
Primary model with standardized Beta, partial and part corre

Coefficients^a

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	First-period grade predictor	.240	4.165
	Second-period grade predictor	.243	4.121
	Weekly study-time category	.917	1.090
	Past class failures	.762	1.312
	School absences	.948	1.055
	Student age	.860	1.163
	Mother education	.563	1.776
	Father education	.572	1.749

a. Dependent Variable: Final grade outcome

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	(Constant)	Variance Proportions	
					First-period grade predictor	Second-period grade predictor
1	1	7.051	1.000	.00	.00	.00
	2	.945	2.731	.00	.00	.00
	3	.570	3.518	.00	.00	.00
	4	.211	5.777	.00	.00	.00
	5	.108	8.064	.00	.01	.01
	6	.062	10.680	.00	.00	.00
	7	.043	12.869	.02	.06	.08
	8	.008	30.135	.00	.87	.88
	9	.002	56.814	.97	.06	.02

Standardized Beta Coefficients
Primary model with standardized Beta, partial and part corre

Collinearity Diagnostics^a

Model	Dimension	Variance Proportions				
		Weekly study- time category	Past class failures	School absences	Student age	Mother education
1	1	.00	.00	.01	.00	.00
	2	.00	.61	.05	.00	.00
	3	.00	.12	.88	.00	.00
	4	.15	.01	.00	.00	.13
	5	.83	.00	.02	.00	.02
	6	.00	.00	.00	.00	.84
	7	.01	.21	.04	.03	.00
	8	.00	.00	.00	.00	.00
	9	.00	.04	.01	.96	.00

Collinearity Diagnostics^a

Model	Dimension	Variance ...
		Father education
1	1	.00
	2	.00
	3	.00
	4	.19
	5	.02
	6	.76
	7	.01
	8	.00
	9	.01

a. Dependent Variable: Final grade outcome

Standardized Beta Coefficients
Primary model with standardized Beta, partial and part corre

Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	.2512	19.5507	11.9060	2.97988	649
Std. Predicted Value	-3.911	2.565	.000	1.000	649
Standard Error of Predicted Value	.068	.417	.141	.043	649
Adjusted Predicted Value	.2610	19.5648	11.9071	2.97878	649
Residual	-9.05080	5.78244	.00000	1.24798	649
Std. Residual	-7.207	4.605	.000	.994	649
Stud. Residual	-7.296	4.625	.000	1.002	649
Deleted Residual	-9.27543	5.83253	-.00106	1.26819	649
Stud. Deleted Residual	-7.614	4.700	-.003	1.019	649
Mahal. Distance	.891	70.420	7.988	6.680	649
Cook's Distance	.000	.147	.002	.009	649
Centered Leverage Value	.001	.109	.012	.010	649

a. Dependent Variable: Final grade outcome

Standardized Beta Coefficients

Standardized Beta Coefficients
Saved predictions, residuals, and influence diagnostics

Descriptives

Notes

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Comments		
Input	Data	D:\DATA ANALYSIS\H Regression Tests and Models\Standardized Beta Coefficients\SPSS_Output \sav\standardized_beta_c oefficients_analysis_data. sav
	Active Dataset	StandardizedBetaData
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	649
Missing Value Handling	Definition of Missing	User defined missing values are treated as missing.
	Cases Used	All non-missing data are used.
Syntax		DESCRIPTIVES VARIABLES=beta_pred beta_resid beta_zpred beta_zresid beta_cook beta_lev /STATISTICS=MEAN STDDEV MIN MAX.
Resources	Processor Time	00:00:00.05
	Elapsed Time	00:00:00.02

Standardized Beta Coefficients
Saved predictions, residuals, and influence diagnostics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Unstandardized Predicted Value	649	.25124	19.55068	11.9060092	2.97987928
Unstandardized Residual	649	-9.05080	5.78244	.0000000	1.24798207
Standardized Predicted Value	649	-3.91116	2.56543	.0000000	1.00000000
Standardized Residual	649	-7.20744	4.60474	.0000000	.99380799
Cook's Distance	649	.00000	.14681	.0018089	.00890335
Centered Leverage Value	649	.00137	.10867	.0123267	.01030913
Valid N (listwise)	649				

Explore

Notes

Output Created		12-JUL-2026 13:51:24
Comments		
Input	Data	D:\DATA ANALYSIS\H Regression Tests and Models\Standardized Beta Coefficients\SPSS_Output \sav\standardized_beta_c oefficients_analysis_data. sav
	Active Dataset	StandardizedBetaData
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	649
Missing Value Handling	Definition of Missing	User-defined missing values for dependent variables are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any dependent variable or factor used.

Standardized Beta Coefficients
Saved predictions, residuals, and influence diagnostics

Notes

Syntax		EXAMINE VARIABLES=beta_resid beta_zresid /PLOT BOXPLOT HISTOGRAM NPLOT /STATISTICS DESCRIPTIVES EXTREME /CINTERVAL 95 /MISSING LISTWISE /NOTOTAL.
Resources	Processor Time	00:00:02.62
	Elapsed Time	00:00:02.42

Case Processing Summary

	Valid		Cases Missing		Total	
	N	Percent	N	Percent	N	Percent
Unstandardized Residual	649	100.0%	0	0.0%	649	100.0%
Standardized Residual	649	100.0%	0	0.0%	649	100.0%

Standardized Beta Coefficients
Saved predictions, residuals, and influence diagnostics

Descriptives

			Statistic	Std. Error
Unstandardized Residual	Mean		.0000000	.04898758
	95% Confidence Interval for Mean	Lower Bound	-.0961936	
		Upper Bound	.0961936	
	5% Trimmed Mean		.0691719	
	Median		-.0661585	
	Variance		1.557	
	Std. Deviation		1.24798207	
	Minimum		-9.05080	
	Maximum		5.78244	
	Range		14.83324	
	Interquartile Range		1.08192	
	Skewness		-2.844	.096
	Kurtosis		18.518	.192
Standardized Residual	Mean		.0000000	.03901038
	95% Confidence Interval for Mean	Lower Bound	-.0766020	
		Upper Bound	.0766020	
	5% Trimmed Mean		.0550838	
	Median		-.0526841	
	Variance		.988	
	Std. Deviation		.99380799	
	Minimum		-7.20744	
	Maximum		4.60474	
	Range		11.81218	
	Interquartile Range		.86156	
	Skewness		-2.844	.096
	Kurtosis		18.518	.192

Standardized Beta Coefficients
Saved predictions, residuals, and influence diagnostics

Extreme Values

			Case Number	Value
Unstandardized Residual	Highest	1	62	5.78244
		2	308	2.72482
		3	359	2.58937
		4	355	2.58346
		5	390	2.54817
	Lowest	1	164	-9.05080
		2	173	-9.03298
		3	587	-8.16764
		4	640	-7.56366
		5	520	-7.32802
Standardized Residual	Highest	1	62	4.60474
		2	308	2.16986
		3	359	2.06200
		4	355	2.05729
		5	390	2.02919
	Lowest	1	164	-7.20744
		2	173	-7.19325
		3	587	-6.50415
		4	640	-6.02318
		5	520	-5.83554

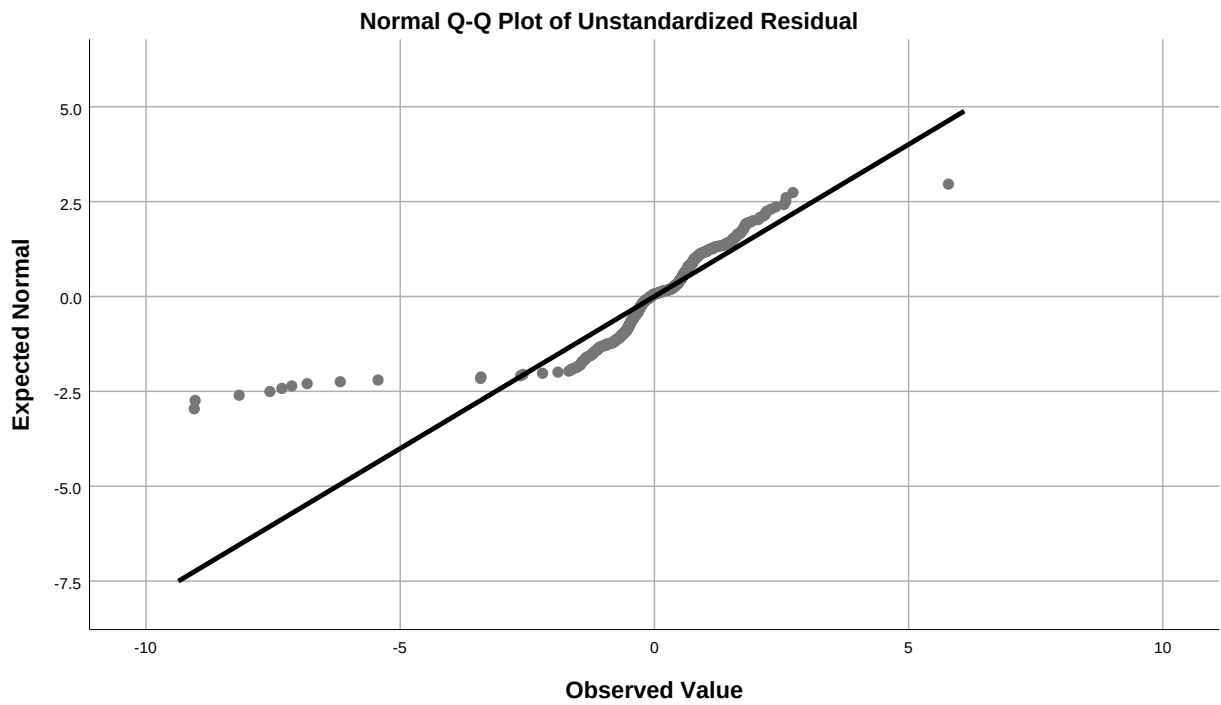
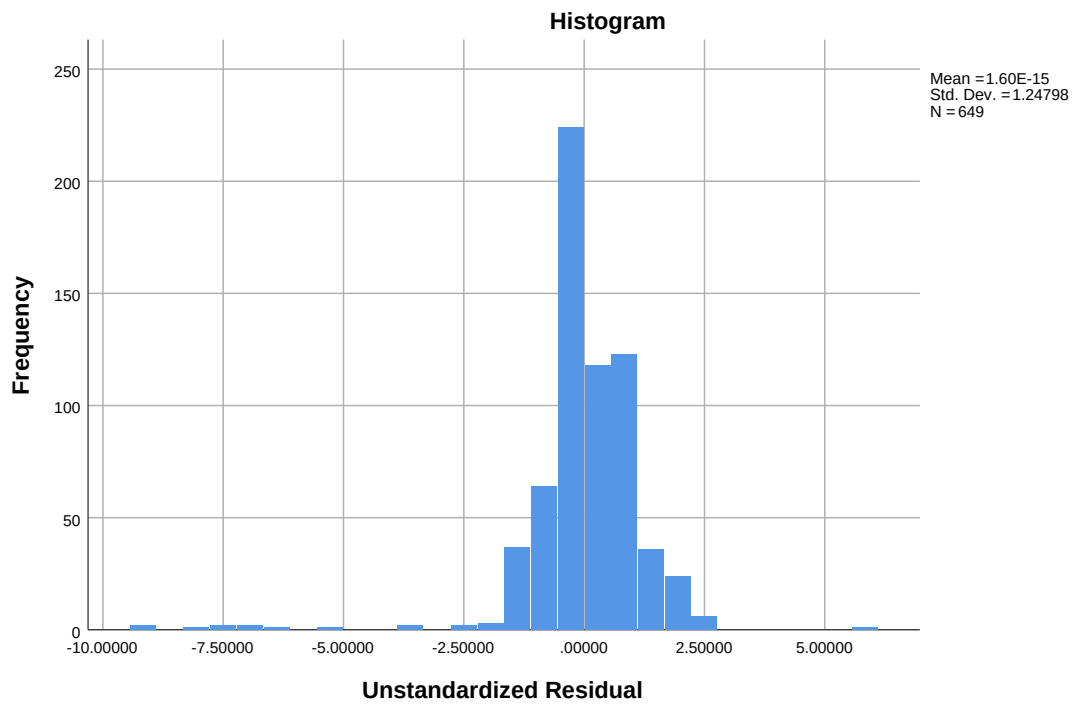
Tests of Normality

Kolmogorov-Smirnov ^a				Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Unstandardized Residual	.155	649	.000	.757	649	.000
Standardized Residual	.155	649	.000	.757	649	.000

a. Lilliefors Significance Correction

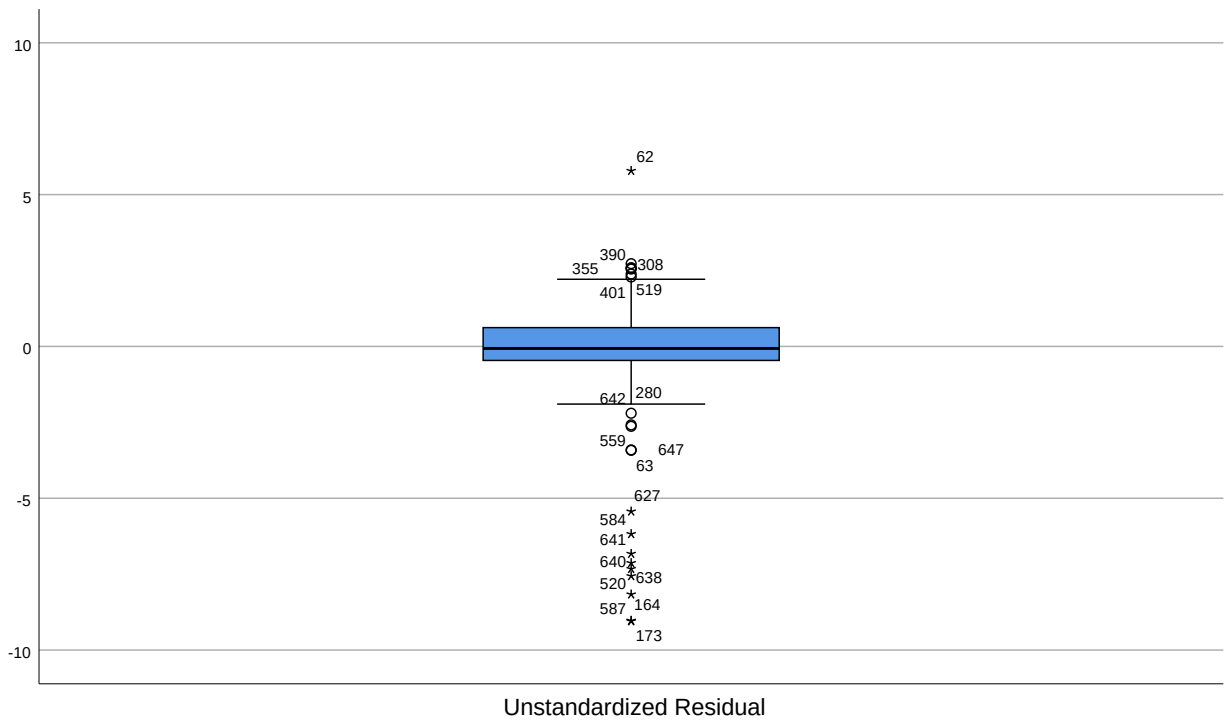
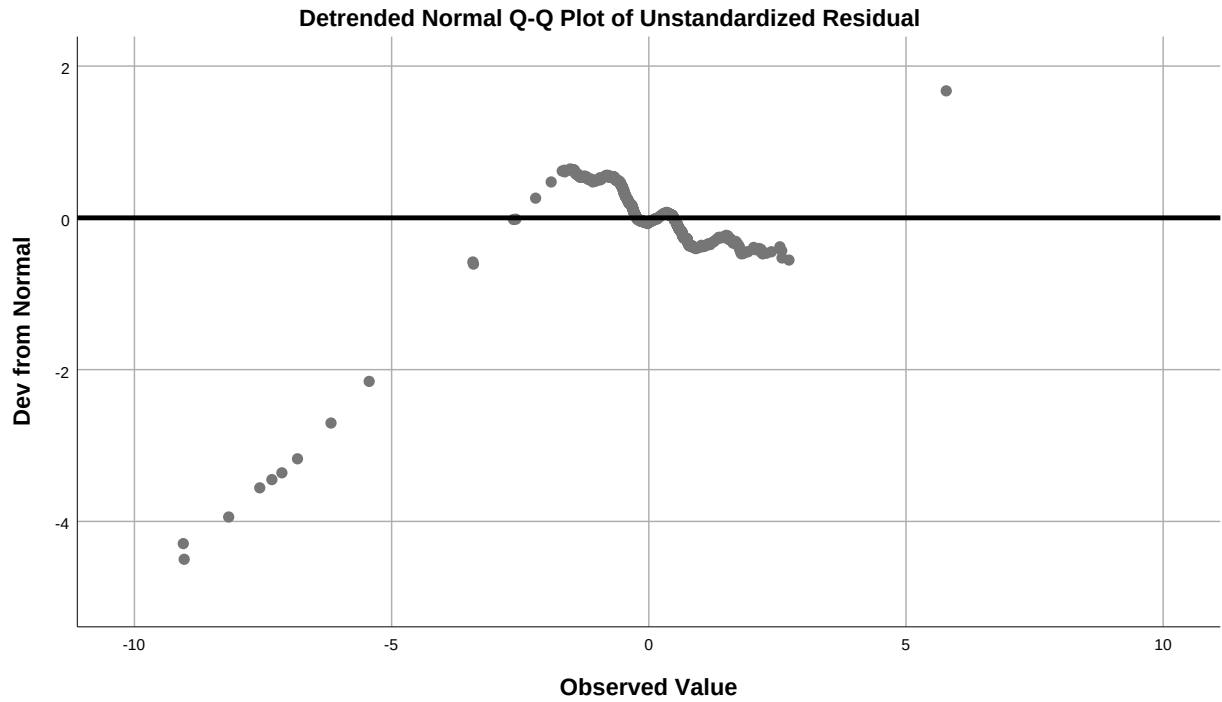
Unstandardized Residual

Standardized Beta Coefficients
Saved predictions, residuals, and influence diagnostics



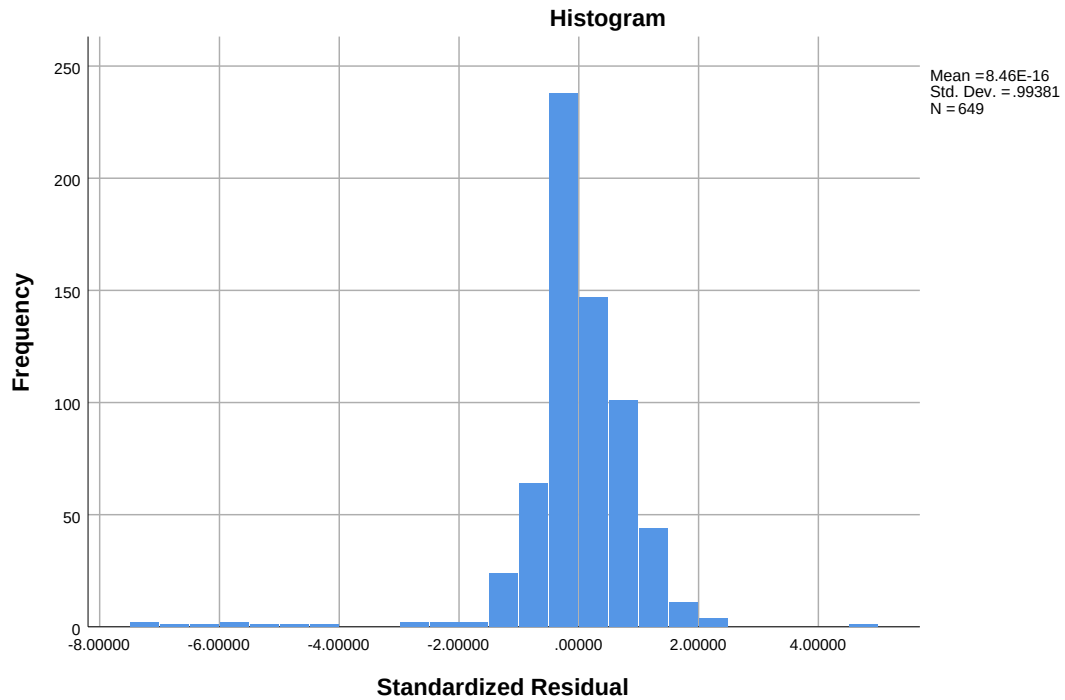
Standardized Beta Coefficients

Saved predictions, residuals, and influence diagnostics

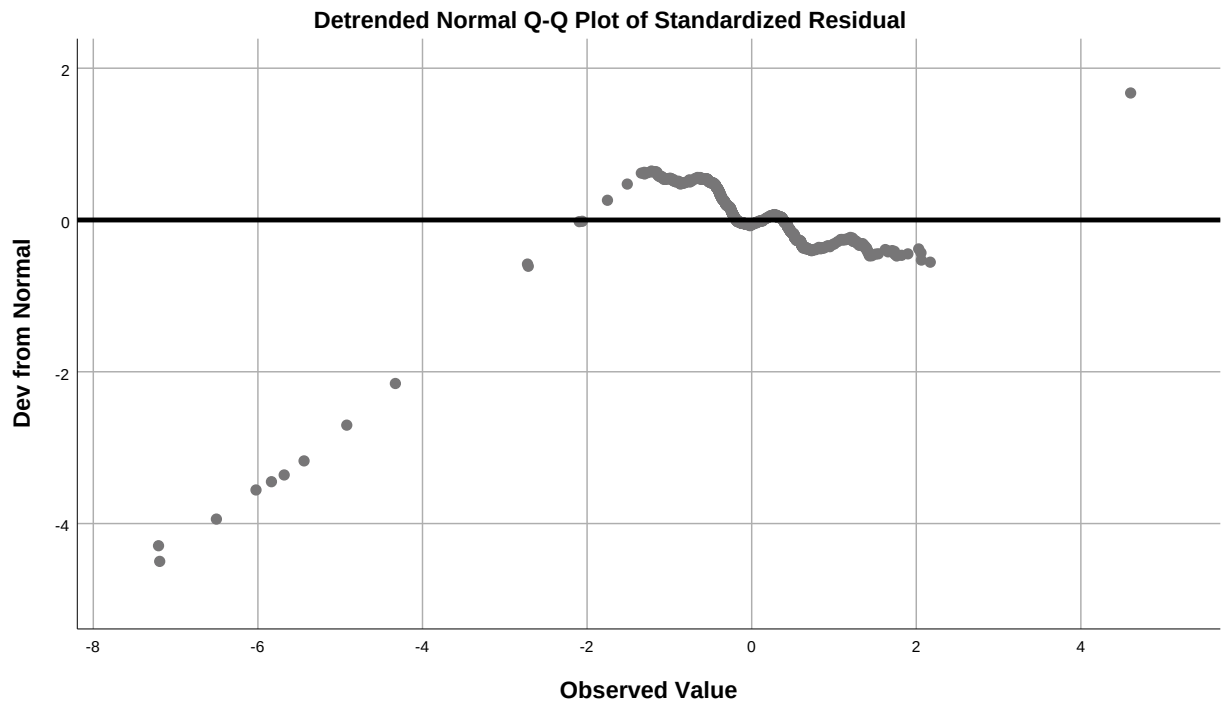
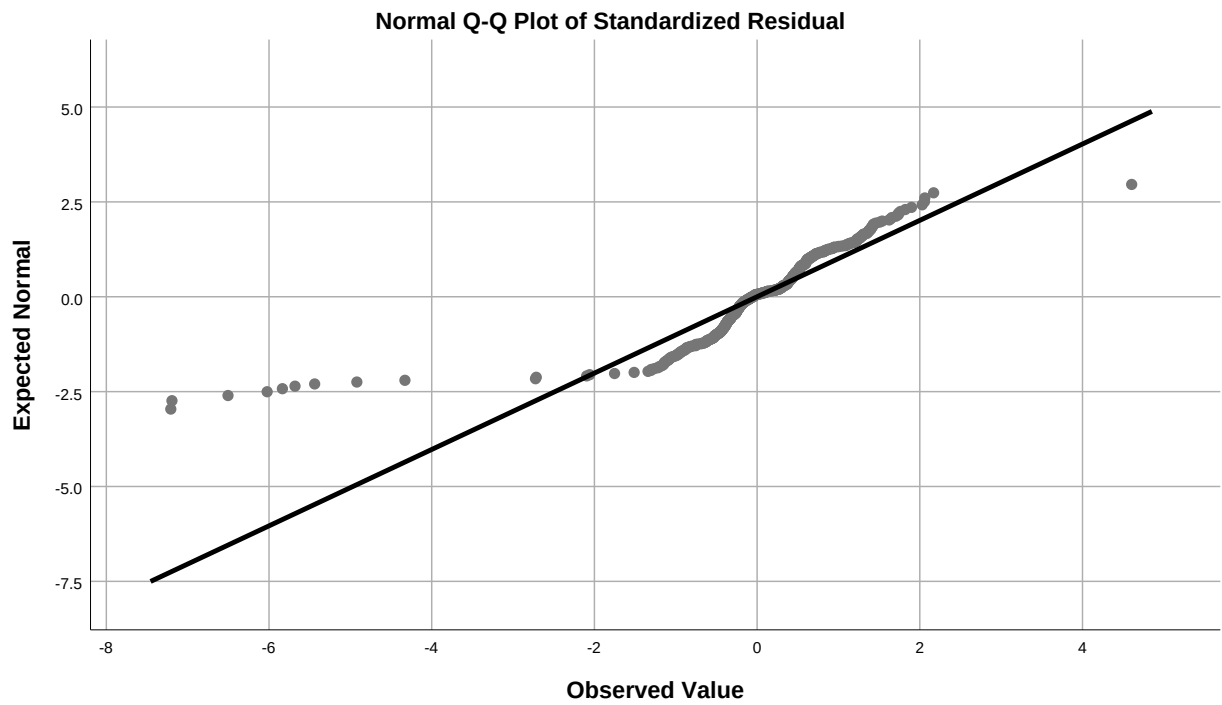


Standardized Beta Coefficients
Saved predictions, residuals, and influence diagnostics

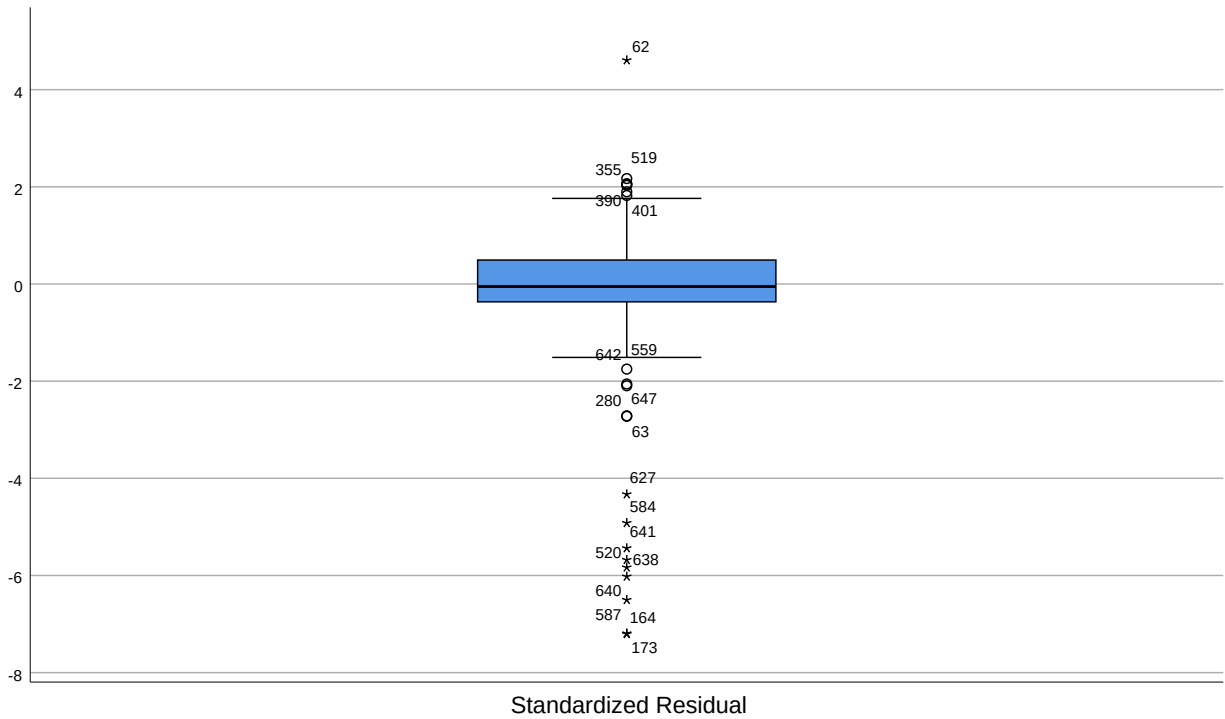
Standardized Residual



Standardized Beta Coefficients
Saved predictions, residuals, and influence diagnostics



Standardized Beta Coefficients
Saved predictions, residuals, and influence diagnostics



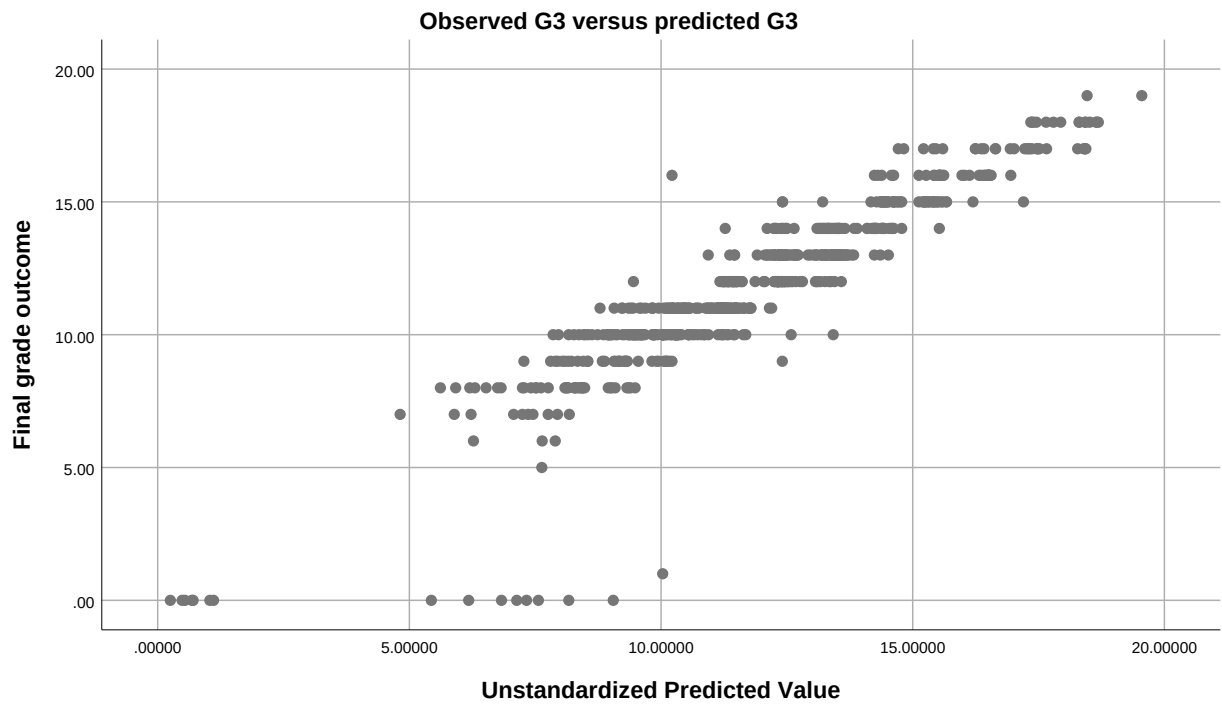
Graph

Standardized Beta Coefficients
Saved predictions, residuals, and influence diagnostics

Notes

Output Created		12-JUL-2026 13:51:27
Comments		
Input	Data	D:\DATA ANALYSIS\H Regression Tests and Models\Standardized Beta Coefficients\SPSS_Output \sav\standardized_beta_c oefficients_analysis_data. sav
	Active Dataset	StandardizedBetaData
	Filter	<none>
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	N of Rows in Working Data File	649
Syntax		GRAPH /SCATTERPLOT(BIVAR) =beta_pred WITH G3 /TITLE='Observed G3 versus predicted G3'.
Resources	Processor Time	00:00:00.41
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Standardized Beta Coefficients
Saved predictions, residuals, and influence diagnostics



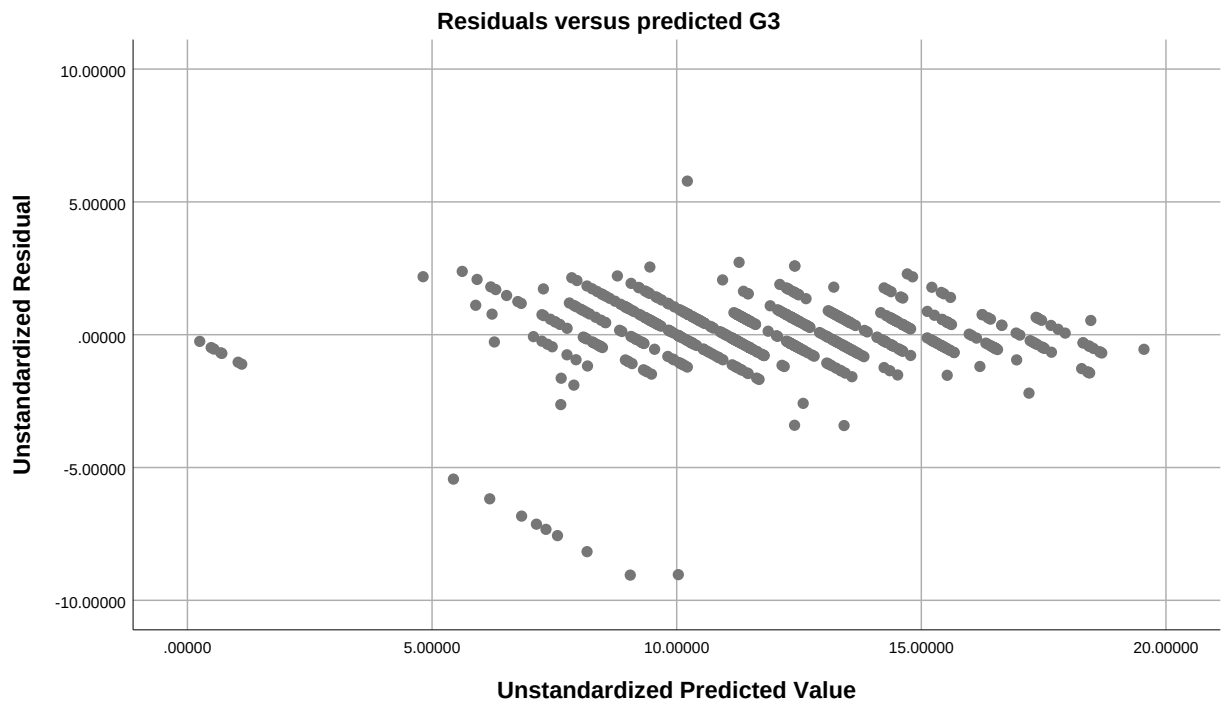
Graph

Standardized Beta Coefficients
Saved predictions, residuals, and influence diagnostics

Notes

Output Created		12-JUL-2026 13:51:27
Comments		
Input	Data	D:\DATA ANALYSIS\H Regression Tests and Models\Standardized Beta Coefficients\SPSS_Output \sav\standardized_beta_c oefficients_analysis_data. sav
	Active Dataset	StandardizedBetaData
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	N of Rows in Working Data File	649
Syntax		GRAPH /SCATTERPLOT(BIVAR) =beta_pred WITH beta_resid /TITLE='Residuals versus predicted G3'.
Resources	Processor Time	00:00:00.49
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Standardized Beta Coefficients
Saved predictions, residuals, and influence diagnostics



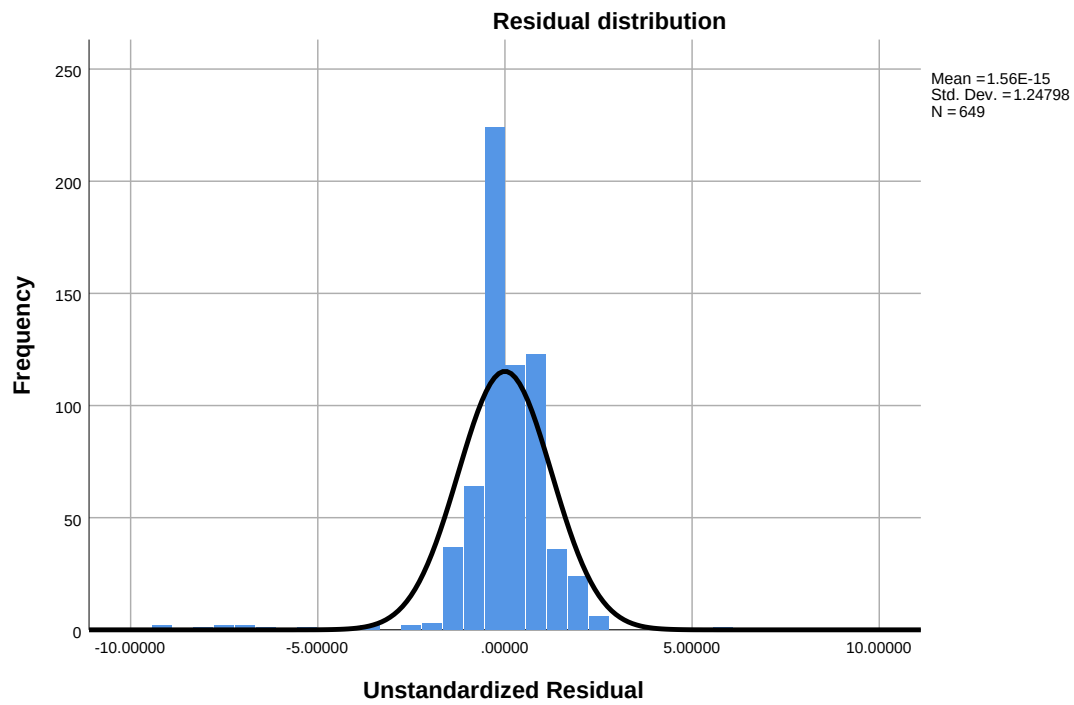
Graph

Standardized Beta Coefficients
Saved predictions, residuals, and influence diagnostics

Notes

Output Created		12-JUL-2026 13:51:28
Comments		
Input	Data	D:\DATA ANALYSIS\H Regression Tests and Models\Standardized Beta Coefficients\SPSS_Output \sav\standardized_beta_c oefficients_analysis_data. sav
	Active Dataset	StandardizedBetaData
	Filter	<none>
	Weight	<none>
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	N of Rows in Working Data File	649
Syntax		GRAPH /HISTOGRAM(NORMAL) =beta_resid /TITLE='Residual distribution'.
Resources	Processor Time	00:00:00.42
	Elapsed Time	00:00:00.53

Standardized Beta Coefficients
Saved predictions, residuals, and influence diagnostics



Graph

Standardized Beta Coefficients
Saved predictions, residuals, and influence diagnostics

Notes

Output Created		12-JUL-2026 13:51:28
Comments		
Input	Data	D:\DATA ANALYSIS\H Regression Tests and Models\Standardized Beta Coefficients\SPSS_Output \sav\standardized_beta_c oefficients_analysis_data. sav
	Active Dataset	StandardizedBetaData
	Filter	<none>
	Weight	<none>
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	N of Rows in Working Data File	649
Syntax		GRAPH /SCATTERPLOT(BIVAR) =G2 WITH G3 /TITLE='Final grade by second-period grade'.
Resources	Processor Time	00:00:00.59
	Elapsed Time	00:00:00.43

Standardized Beta Coefficients
Saved predictions, residuals, and influence diagnostics

