

Host

Notes

Output Created		12-JUL-2026 10:39:11
Comments		
Input	Active Dataset	DataSet0
	Filter	<none>
	Weight	<none>
	Split File	<none>
Syntax		HOST COMMAND=["if not exist "D:\DATA ANALYSIS\H Regression Tests and Models\Quantile Regression\SPSS_Output " mkdir "D:\DATA ANALYSIS\H Regression Tests and Models\Quantile Regression\SPSS_Output "].
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.06

Host

Notes

Output Created		12-JUL-2026 10:39:11
Comments		
Input	Active Dataset	DataSet0
	Filter	<none>
	Weight	<none>
	Split File	<none>
Syntax		HOST COMMAND=["if not exist "D:\DATA ANALYSIS\H Regression Tests and Models\Quantile Regression\SPSS_Output\sav" mkdir "D:\DATA ANALYSIS\H Regression Tests and Models\Quantile Regression\SPSS_Output\sav""].
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.08

Host

Notes

Output Created		12-JUL-2026 10:39:11
Comments		
Input	Active Dataset	DataSet0
	Filter	<none>
	Weight	<none>
	Split File	<none>
Syntax		HOST COMMAND=["if not exist "D:\DATA ANALYSIS\H Regression Tests and Models\Quantile Regression\SPSS_Output\spv" mkdir "D:\DATA ANALYSIS\H Regression Tests and Models\Quantile Regression\SPSS_Output\spv""].
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.06

Host

Notes

Output Created		12-JUL-2026 10:39:11
Comments		
Input	Active Dataset	DataSet0
	Filter	<none>
	Weight	<none>
	Split File	<none>
Syntax		HOST COMMAND=["if not exist "D:\DATA ANALYSIS\H Regression Tests and Models\Quantile Regression\SPSS_Output\pdf" mkdir "D:\DATA ANALYSIS\H Regression Tests and Models\Quantile Regression\SPSS_Output\pdf""].
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.05

Quantile Regression

Quantile Regression
Conditional 25th, 50th, and 75th percentile models for G3.

Descriptives

Notes

Output Created		12-JUL-2026 10:39:12
Comments		
Input	Data	D:\DATA ANALYSIS\H Regression Tests and Models\Quantile Regression\SPSS_Output\sav\quantile_regression_analysis_data.sav
	Active Dataset	QuantileRegressionData
	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 traveltime health /STATISTICS=MEAN STDDEV MIN MAX.
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.01

[QuantileRegressionData] D:\DATA ANALYSIS\H Regression Tests and Models\Quantile Regression\SPSS_Output\sav\quantile_regression_analysis_data.sav

Quantile Regression
Conditional 25th, 50th, and 75th percentile models for G3.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Final grade outcome used for quantile regression	649	.00	19.00	11.9060	3.23066
First period grade	649	.00	19.00	11.3991	2.74527
Second period grade	649	.00	19.00	11.5701	2.91364
Weekly study time	649	1.00	4.00	1.9307	.82951
Past class failures	649	.00	3.00	.2219	.59324
School absences	649	.00	32.00	3.6595	4.64076
Student age	649	15.00	22.00	16.7442	1.21814
Mother education	649	.00	4.00	2.5146	1.13455
Father education	649	.00	4.00	2.3066	1.09993
Home to school travel time	649	1.00	4.00	1.5686	.74866
Current health status	649	1.00	5.00	3.5362	1.44626
Valid N (listwise)	649				

Frequencies

Quantile Regression
Conditional 25th, 50th, and 75th percentile models for G3.

Notes

Output Created		12-JUL-2026 10:39:12
Comments		
Input	Data	D:\DATA ANALYSIS\H Regression Tests and Models\Quantile Regression\SPSS_Output\ sav\quantile_regression_a nalysis_data.sav
	Active Dataset	QuantileRegressionData
	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 all cases with valid data.
Syntax		FREQUENCIES VARIABLES=G3 G1 G2 studytime failures absences age /FORMAT=NOTABLE /STATISTICS=MEDIAN QUARTILES /HISTOGRAM NORMAL.
Resources	Processor Time	00:00:07.22
	Elapsed Time	00:00:04.79

Warnings

The STATISTICS subcommand has encountered a bad option
keyword. Found: QUARTILES

Quantile Regression
Conditional 25th, 50th, and 75th percentile models for G3.

Statistics

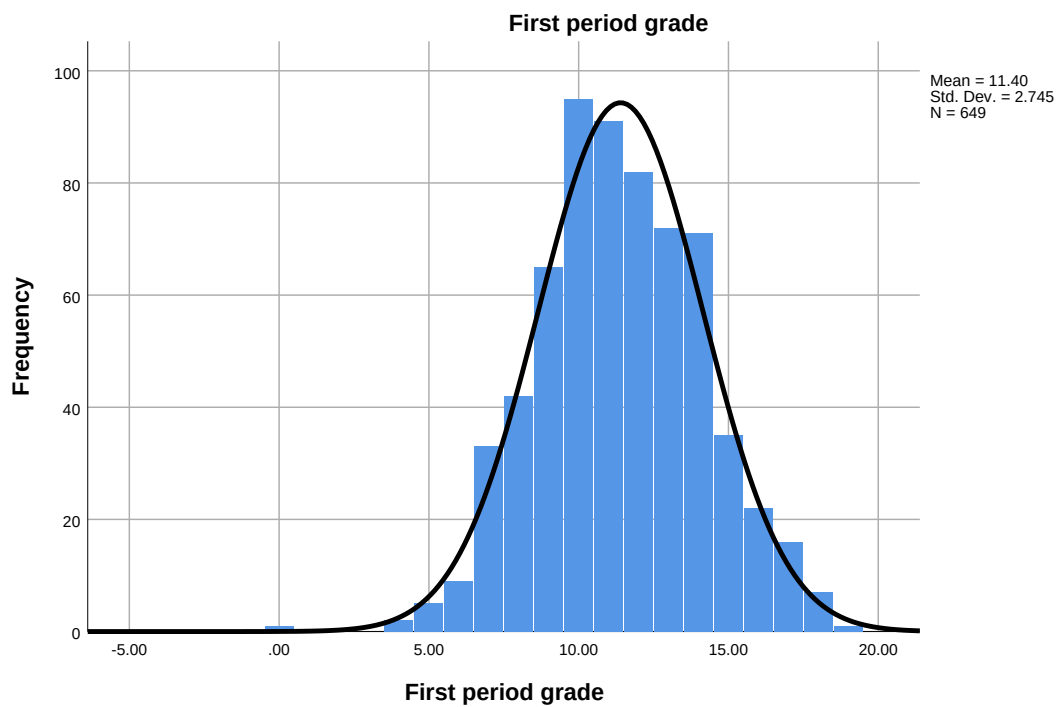
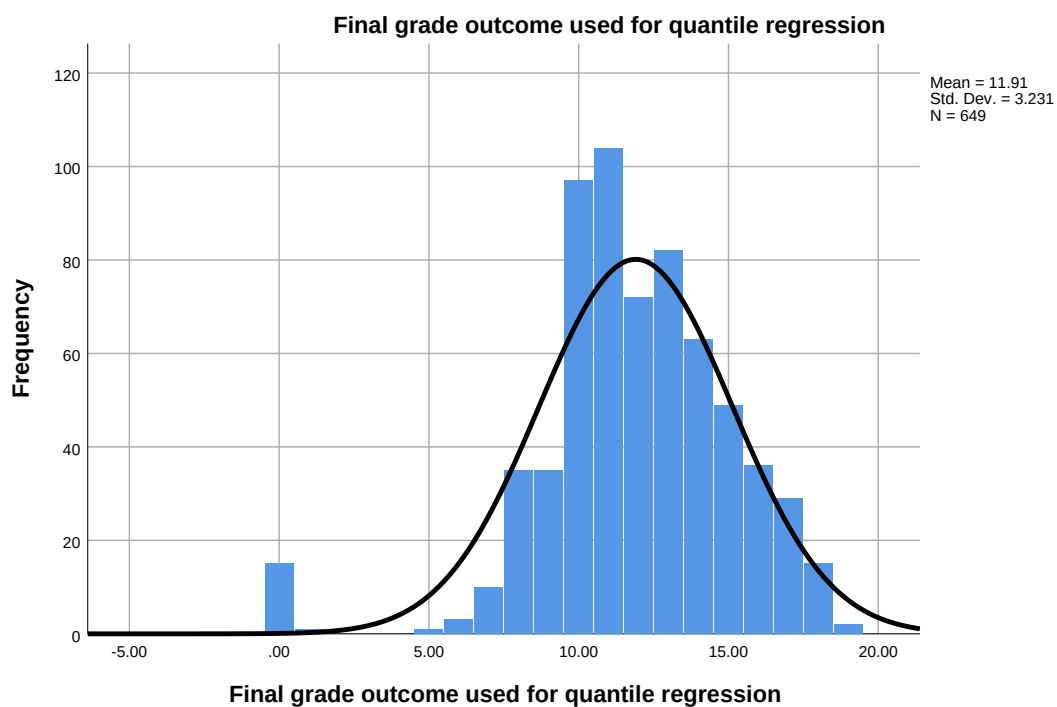
		Final grade outcome used for quantile regression	First period grade	Second period grade	Weekly study time	Past class failures
N	Valid	649	649	649	649	649
	Missing	0	0	0	0	0
Mean		11.9060	11.3991	11.5701	1.9307	.2219
Median		12.0000	11.0000	11.0000	2.0000	.0000
Std. Deviation		3.23066	2.74527	2.91364	.82951	.59324
Minimum		.00	.00	.00	1.00	.00
Maximum		19.00	19.00	19.00	4.00	3.00

Statistics

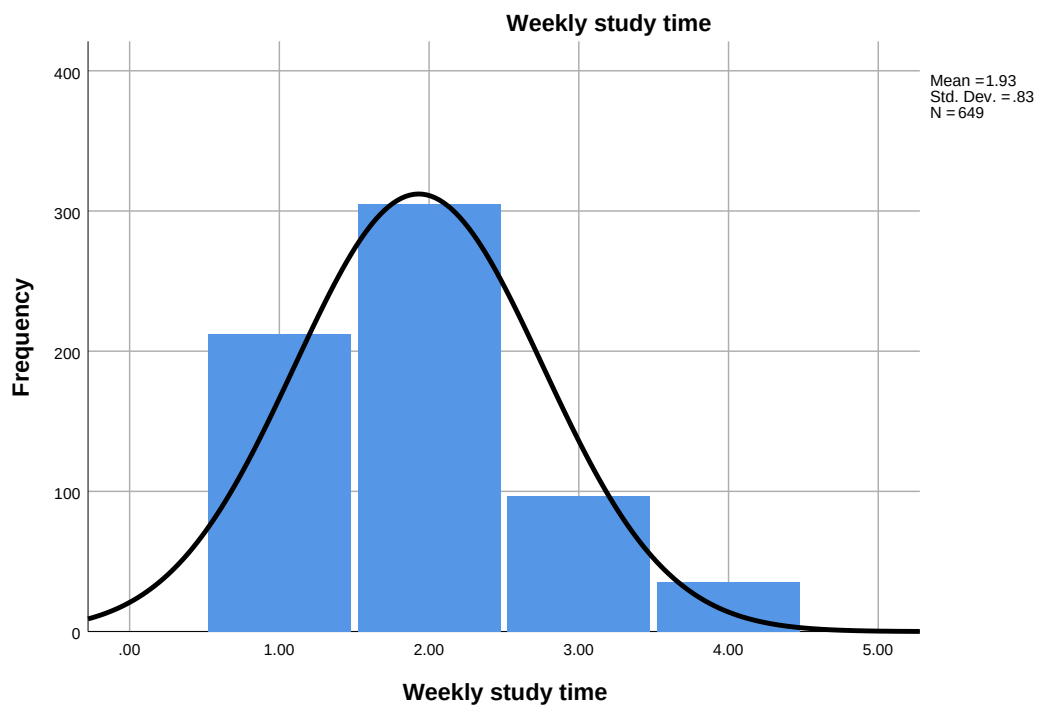
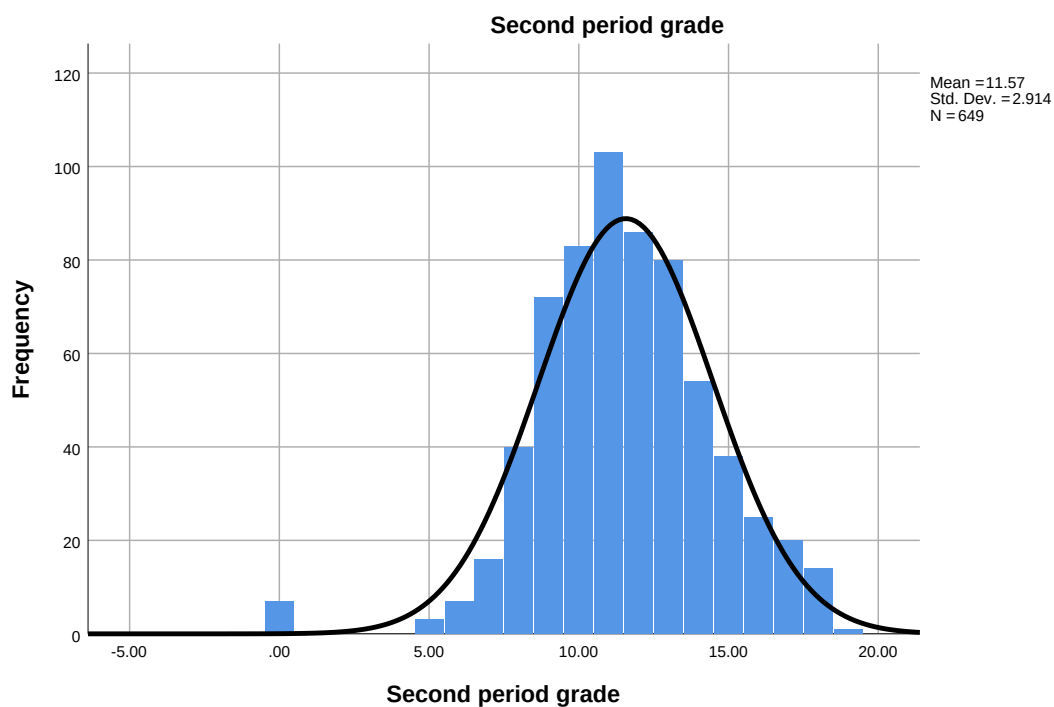
		School absences	Student age
N	Valid	649	649
	Missing	0	0
Mean		3.6595	16.7442
Median		2.0000	17.0000
Std. Deviation		4.64076	1.21814
Minimum		.00	15.00
Maximum		32.00	22.00

Histogram

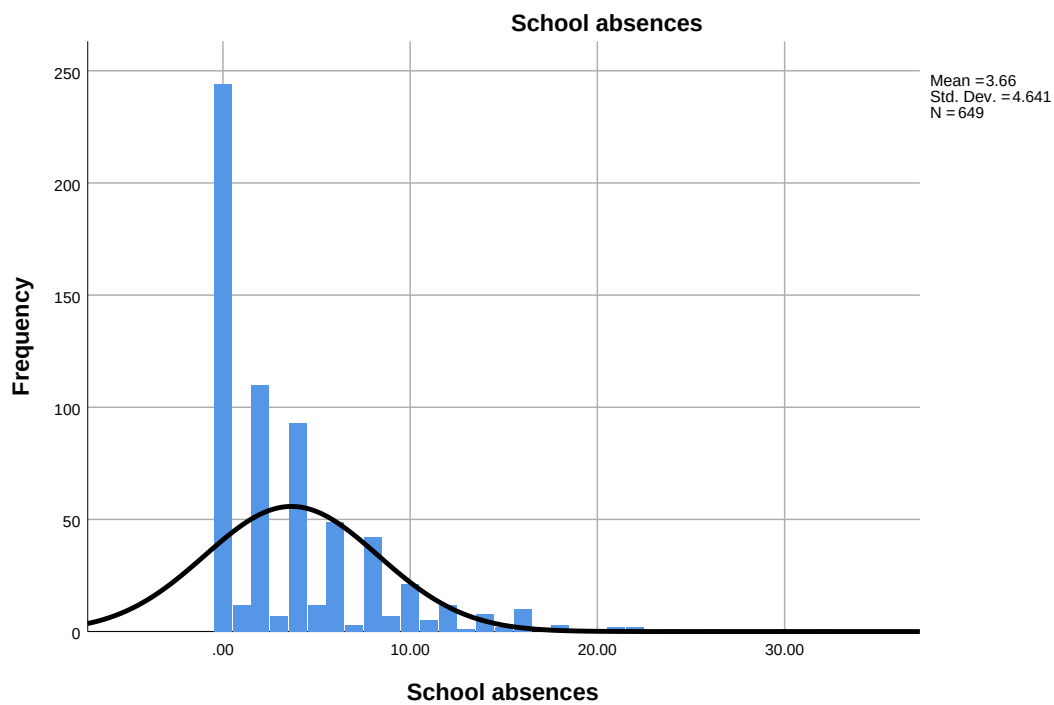
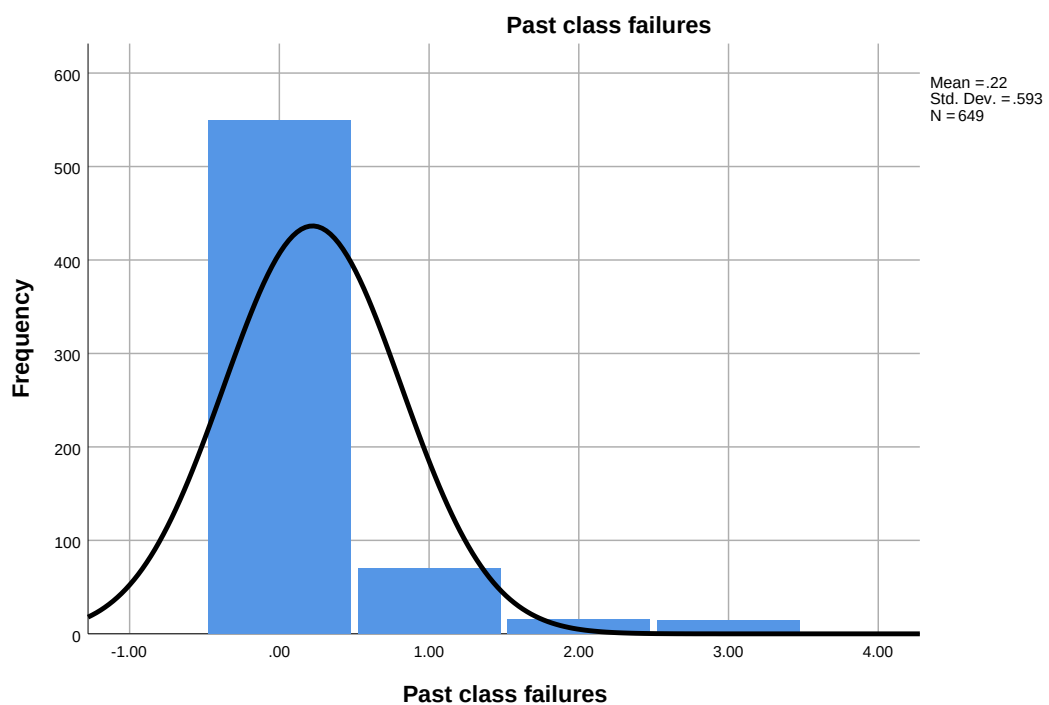
Quantile Regression
Conditional 25th, 50th, and 75th percentile models for G3.



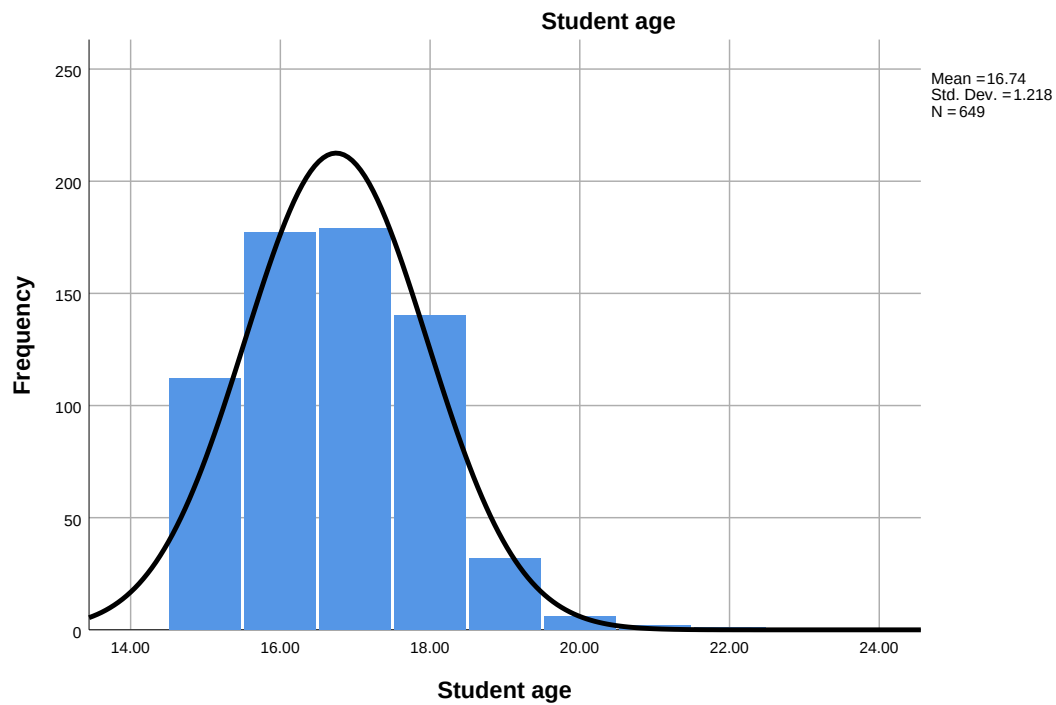
Quantile Regression
Conditional 25th, 50th, and 75th percentile models for G3.



Quantile Regression
Conditional 25th, 50th, and 75th percentile models for G3.



Quantile Regression
Conditional 25th, 50th, and 75th percentile models for G3.



>Error # 1. Command name: QUANTILE

>The first word in the line is not recognized as an SPSS Statistics command.

>Execution of this command stops.

OLS Mean Regression Comparison

Regression

Notes

Output Created		12-JUL-2026 10:39:17
Comments		
Input	Data	D:\DATA ANALYSIS\H Regression Tests and Models\Quantile Regression\SPSS_Output\ sav\quantile_regression_a nalysis_data.sav
	Active Dataset	QuantileRegressionData
	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 COLLIN CI(95) /DEPENDENT G3 /METHOD=ENTER G1 G2 studytime failures absences age Medu Fedu travelttime health /SAVE PRED(olspred) RESID(olsresid).
Resources	Processor Time	00:00:00.06
	Elapsed Time	00:00:00.05
	Memory Required	10448 bytes
	Additional Memory Required for Residual Plots	0 bytes

OLS Mean Regression Comparison

Notes

Variables Created or Modified	olspred	Unstandardized Predicted Value
	olsresid	Unstandardized Residual

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Current health status, Mother education, School absences, Weekly study time, Student age, Home to school travel time, Second period grade, Past class failures, Father education, First period grade ^b	.	Enter

a. Dependent Variable: Final grade outcome used for quantile regression

b. All requested variables entered.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.923 ^a	.852	.849	1.25411

a. Predictors: (Constant), Current health status, Mother education, School absences, Weekly study time, Student age, Home to school travel time, Second period grade, Past class failures, Father education, First period grade

b. Dependent Variable: Final grade outcome used for quantile regression

OLS Mean Regression Comparison

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5759.826	10	575.983	366.217	.000 ^b
	Residual	1003.441	638	1.573		
	Total	6763.267	648			

a. Dependent Variable: Final grade outcome used for quantile regression

b. Predictors: (Constant), Current health status, Mother education, School absences, Weekly study time, Student age, Home to school travel time, Second period grade, Past class failures, Father education, First period grade

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.488	.804		-.608	.544
	First period grade	.147	.037	.125	3.997	.000
	Second period grade	.882	.034	.795	25.611	.000
	Weekly study time	.094	.062	.024	1.513	.131
	Past class failures	-.236	.095	-.043	-2.477	.013
	School absences	.022	.011	.032	2.044	.041
	Student age	.023	.044	.009	.529	.597
	Mother education	-.036	.059	-.013	-.611	.541
	Father education	.030	.059	.010	.512	.609
	Home to school travel time	.079	.069	.018	1.149	.251
	Current health status	-.051	.034	-.023	-1.470	.142

OLS Mean Regression Comparison

Coefficients^a

Model		95.0% Confidence Interval for B	
		Lower Bound	Upper Bound
1	(Constant)	-2.067	1.090
	First period grade	.075	.219
	Second period grade	.814	.949
	Weekly study time	-.028	.216
	Past class failures	-.423	-.049
	School absences	.001	.044
	Student age	-.063	.109
	Mother education	-.151	.079
	Father education	-.086	.147
	Home to school travel time	-.056	.214
	Current health status	-.118	.017

a. Dependent Variable: Final grade outcome used for quantile regression

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	(Constant)	Variance Proportions	
					First period grade	Second period grade
1	1	8.693	1.000	.00	.00	.00
	2	.948	3.028	.00	.00	.00
	3	.577	3.881	.00	.00	.00
	4	.274	5.629	.00	.00	.00
	5	.161	7.347	.00	.00	.00
	6	.151	7.582	.00	.00	.00
	7	.093	9.664	.00	.03	.04
	8	.061	11.961	.00	.00	.00
	9	.031	16.643	.04	.04	.05
	10	.008	33.577	.00	.87	.89
	11	.002	63.864	.96	.05	.02

OLS Mean Regression Comparison

Collinearity Diagnostics^a

Model	Dimension	Variance Proportions				
		Weekly study time	Past class failures	School absences	Student age	Mother education
1	1	.00	.00	.00	.00	.00
	2	.00	.60	.04	.00	.00
	3	.00	.10	.88	.00	.00
	4	.01	.06	.00	.00	.09
	5	.49	.02	.01	.00	.01
	6	.00	.00	.00	.00	.03
	7	.47	.02	.00	.00	.01
	8	.00	.00	.00	.00	.85
	9	.03	.14	.05	.06	.02
	10	.00	.00	.00	.00	.00
	11	.00	.04	.00	.94	.00

Collinearity Diagnostics^a

Model	Dimension	Variance Proportions		
		Father education	Home to school travel time	Current health status
1	1	.00	.00	.00
	2	.00	.00	.00
	3	.00	.00	.00
	4	.10	.26	.00
	5	.05	.16	.12
	6	.04	.27	.60
	7	.08	.09	.08
	8	.72	.01	.00
	9	.00	.19	.16
	10	.00	.00	.01
	11	.01	.02	.01

a. Dependent Variable: Final grade outcome used for quantile regression

OLS Mean Regression Comparison

Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	.1505	19.5996	11.9060	2.98138	649
Residual	-8.96815	5.68476	.00000	1.24440	649
Std. Predicted Value	-3.943	2.581	.000	1.000	649
Std. Residual	-7.151	4.533	.000	.992	649

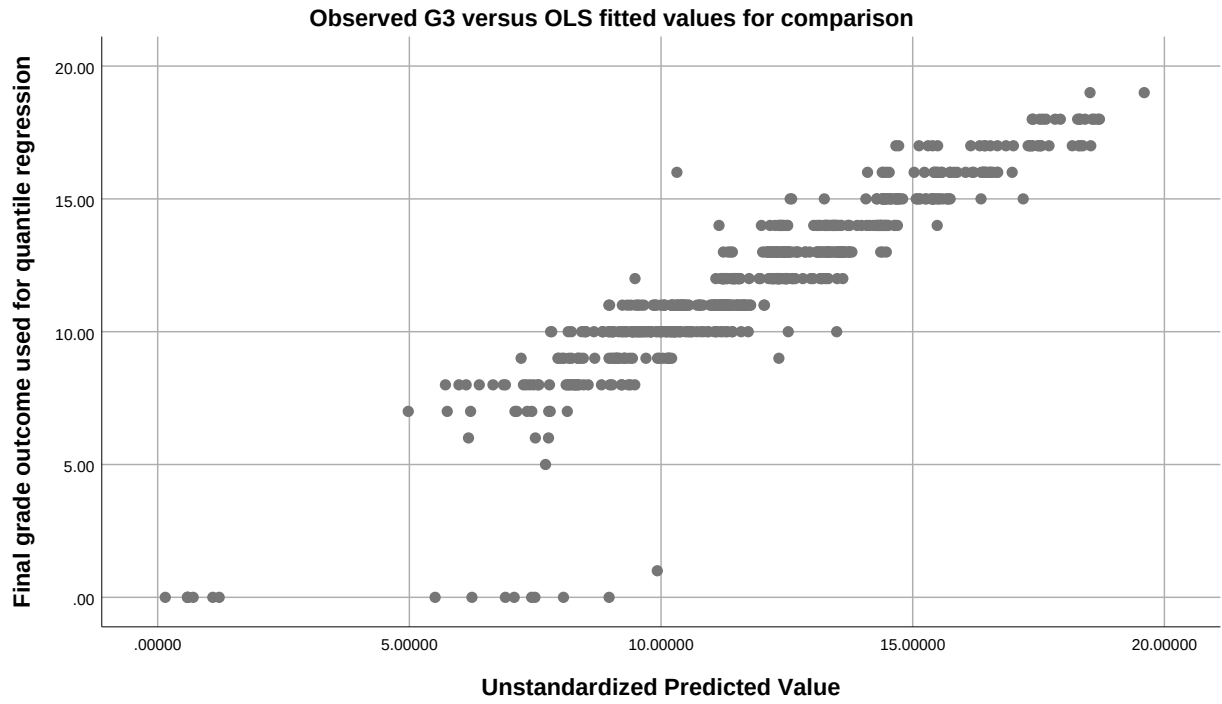
a. Dependent Variable: Final grade outcome used for quantile regression

Graph

Notes

Output Created		12-JUL-2026 10:39:17
Comments		
Input	Data	D:\DATA ANALYSIS\H Regression Tests and Models\Quantile Regression\SPSS_Output\ sav\quantile_regression_a nalysis_data.sav
	Active Dataset	QuantileRegressionData
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	649
Syntax		GRAPH /SCATTERPLOT(BIVAR) =olspred WITH G3 /MISSING=LISTWISE /TITLE='Observed G3 versus OLS fitted values for comparison'.
Resources	Processor Time	00:00:00.50
	Elapsed Time	00:00:00.63

OLS Mean Regression Comparison



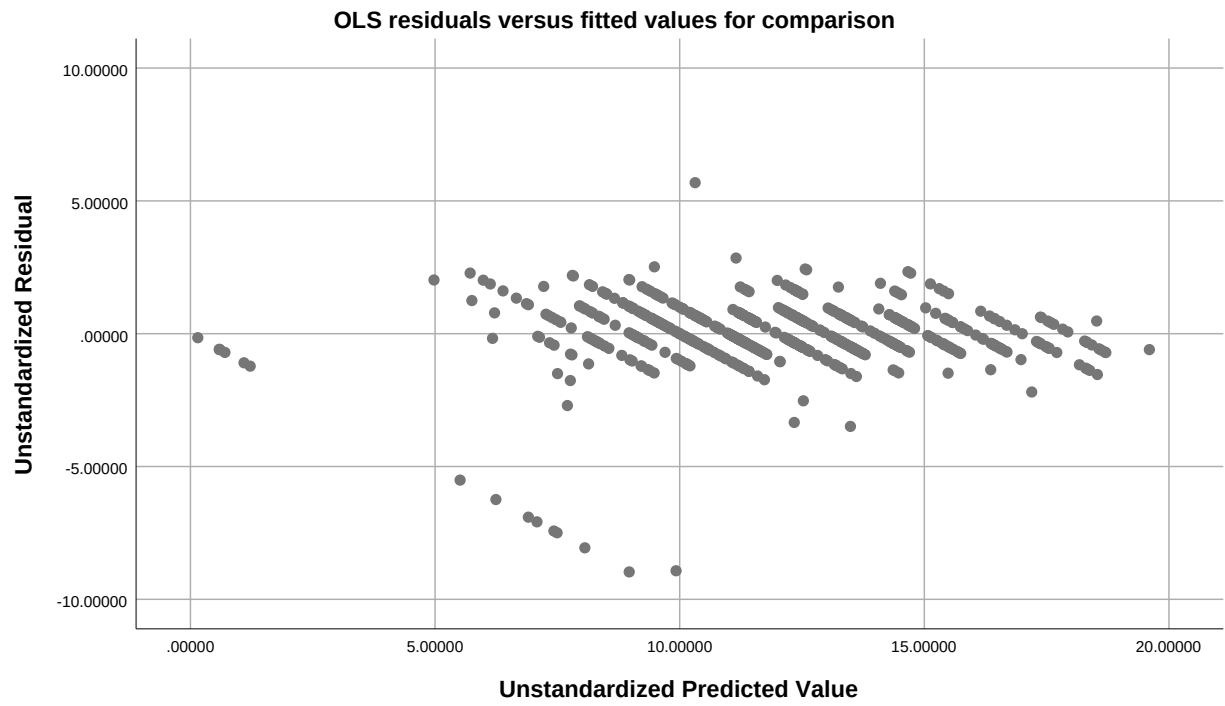
Graph

OLS Mean Regression Comparison

Notes

Output Created		12-JUL-2026 10:39:18
Comments		
Input	Data	D:\DATA ANALYSIS\H Regression Tests and Models\Quantile Regression\SPSS_Output\ sav\quantile_regression_a nalysis_data.sav
	Active Dataset	QuantileRegressionData
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	649
Syntax		GRAPH /SCATTERPLOT(BIVAR) =olspred WITH olsresid /MISSING=LISTWISE /TITLE='OLS residuals versus fitted values for comparison'.
Resources	Processor Time	00:00:00.50
	Elapsed Time	00:00:00.82

OLS Mean Regression Comparison



Explore

OLS Mean Regression Comparison

Notes

Output Created		12-JUL-2026 10:39:19
Comments		
Input	Data	D:\DATA ANALYSIS\H Regression Tests and Models\Quantile Regression\SPSS_Output\ sav\quantile_regression_a nalysis_data.sav
	Active Dataset	QuantileRegressionData
	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.
Syntax		EXAMINE VARIABLES=olsresid BY school /PLOT BOXPLOT HISTOGRAM /STATISTICS DESCRIPTIVES /CINTERVAL 95 /MISSING LISTWISE /NOTOTAL.
Resources	Processor Time	00:00:01.41
	Elapsed Time	00:00:01.73

school

OLS Mean Regression Comparison

Case Processing Summary

	school	Valid		Cases Missing		Total	
		N	Percent	N	Percent	N	Percent
Unstandardized Residual	GP	423	100.0%	0	0.0%	423	100.0%
	MS	226	100.0%	0	0.0%	226	100.0%

Descriptives

	school	Statistic	
Unstandardized Residual	GP	Mean	.0650501
		95% Confidence Interval for Mean	Lower Bound
			Upper Bound
		5% Trimmed Mean	.0781955
		Median	-.0788879
		Variance	1.179
		Std. Deviation	1.08561164
		Minimum	-8.96815
		Maximum	5.68476
		Range	14.65290
		Interquartile Range	1.07963
		Skewness	-2.228
		Kurtosis	23.025
	MS	Mean	-.1217531
		95% Confidence Interval for Mean	Lower Bound
			Upper Bound
		5% Trimmed Mean	.0525074
		Median	-.0759661
		Variance	2.226
		Std. Deviation	1.49212987
		Minimum	-8.06151
		Maximum	2.28316
		Range	10.34467
		Interquartile Range	1.10259
		Skewness	-3.042
		Kurtosis	12.566

OLS Mean Regression Comparison

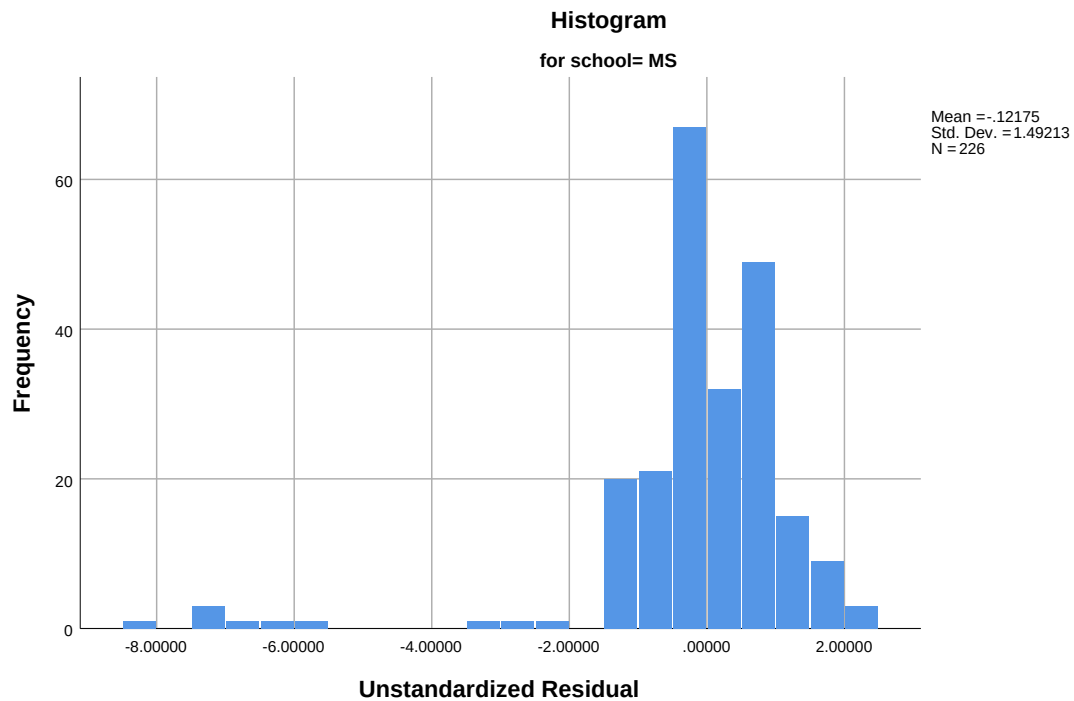
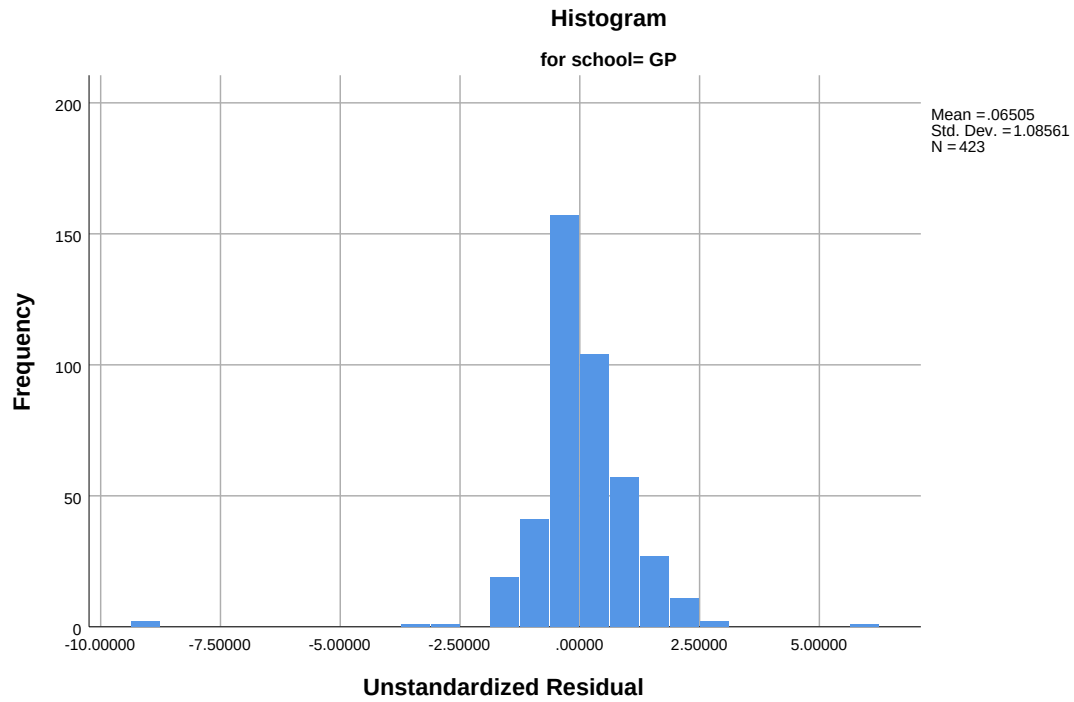
Descriptives

school		Std. Error	
Unstandardized Residual	GP	Mean	.05278424
		95% Confidence Interval for Mean	Lower Bound
			Upper Bound
		5% Trimmed Mean	
		Median	
		Variance	
		Std. Deviation	
		Minimum	
		Maximum	
		Range	
		Interquartile Range	
		Skewness	.119
		Kurtosis	.237
	MS	Mean	.09925500
		95% Confidence Interval for Mean	Lower Bound
			Upper Bound
		5% Trimmed Mean	
		Median	
		Variance	
		Std. Deviation	
		Minimum	
		Maximum	
		Range	
		Interquartile Range	
		Skewness	.162
		Kurtosis	.322

Unstandardized Residual

Histograms

OLS Mean Regression Comparison



OLS Mean Regression Comparison

