REGRESSION

/DESCRIPTIVES MEAN STDDEV CORR SIG N

/MISSING LISTWISE

/STATISTICS COEFF OUTS CI(95) R ANOVA CHANGE ZPP

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

/DEPENDENT Hatas

/METHOD=BACKWARD Kor Testsúly Lakóhely Vércukor

/SAVE RESID.

#### Regression

#### **Notes**

Output Created		21-APR-2024 23:01:35
Comments		
Input	Data	C: \Users\Erika\egyetem\okta tas\aktualis\2023-24 tanev\statisztika2\gyakorla tok\statisztika2_gyak10\ha tástartam.sav
	Active Dataset	DataSet1
	Filter	<none></none>
	Weight	<none></none>
	Split File	<none></none>
	N of Rows in Working Data File	42
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 /DESCRIPTIVES MEAN STDDEV CORR SIG N /MISSING LISTWISE /STATISTICS COEFF OUTS CI(95) R ANOVA CHANGE ZPP /CRITERIA=PIN(.05) POUT(.10) /NOORIGIN /DEPENDENT Hatas /METHOD=BACKWARD Kor Testsúly Lakóhely Vércukor /SAVE RESID.

## Notes

Resources	Processor Time	00:00:00,00
Resources	1 Tocessor Time	00.00.00,00
	Elapsed Time	00:00:00,01
	Memory Required	4736 bytes
	Additional Memory Required for Residual Plots	0 bytes
Variables Created or Modified	RES_1	Unstandardized Residual

## **Descriptive Statistics**

	Mean	Std. Deviation	N
Hatástartam	48,3910	9,78511	40
Életkor	46,33	14,526	40
Testsúly	62,0975	19,33352	40
Lakóhely	2,78	1,493	40
Vércukor	6,5500	,58177	40

#### **Correlations**

		Hatástartam	Életkor	Testsúly	Lakóhely	Vércukor
Pearson Correlation	Hatástartam	1,000	,331	,627	,075	-,889
	Életkor	,331	1,000	,338	-,069	-,259
	Testsúly	,627	,338	1,000	,212	-,473
	Lakóhely	,075	-,069	,212	1,000	-,010
	Vércukor	-,889	-,259	-,473	-,010	1,000
Sig. (1-tailed)	Hatástartam		,018	,000	,323	,000
	Életkor	,018		,016	,337	,053
	Testsúly	,000	,016		,094	,001
	Lakóhely	,323	,337	,094		,475
	Vércukor	,000	,053	,001	,475	
N	Hatástartam	40	40	40	40	40
	Életkor	40	40	40	40	40
	Testsúly	40	40	40	40	40
	Lakóhely	40	40	40	40	40
	Vércukor	40	40	40	40	40

## Variables Entered/Removed<sup>a</sup>

Model	Variables Entered	Variables Removed	Method
1	Vércukor, Lakóhely, Életkor, Testsúly <sup>b</sup>		Enter
2		Lakóhely	Backward (criterion: Probability of F-to-remove >= ,100).
3		Életkor	Backward (criterion: Probability of F-to-remove >= ,100).

a. Dependent Variable: Hatástartam

b. All requested variables entered.

## Model Summary<sup>d</sup>

					Change Statistics	
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change
1	,921 <sup>a</sup>	,849	,831	4,02000	,849	49,018
2	,921 <sup>b</sup>	,848	,836	3,96783	,000	,072
3	,920 <sup>c</sup>	,846	,838,	3,94144	-,002	,509

# Model Summary<sup>d</sup>

#### **Change Statistics**

Model	df1	df2	Sig. F Change
1	4	35	,000
2	1	35	,790
3	1	36	,480

a. Predictors: (Constant), Vércukor, Lakóhely, Életkor, Testsúly

b. Predictors: (Constant), Vércukor, Életkor, Testsúly

c. Predictors: (Constant), Vércukor, Testsúly

d. Dependent Variable: Hatástartam

#### **ANOVA**<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3168,575	4	792,144	49,018	,000 <sup>b</sup>
	Residual	565,613	35	16,160		
	Total	3734,188	39			
2	Regression	3167,415	3	1055,805	67,062	,000 <sup>c</sup>
	Residual	566,774	36	15,744		
	Total	3734,188	39			
3	Regression	3159,395	2	1579,698	101,687	,000 <sup>d</sup>
	Residual	574,793	37	15,535		
	Total	3734,188	39			

a. Dependent Variable: Hatástartam

b. Predictors: (Constant), Vércukor, Lakóhely, Életkor, Testsúly

c. Predictors: (Constant), Vércukor, Életkor, Testsúly

d. Predictors: (Constant), Vércukor, Testsúly

## **Coefficients**<sup>a</sup>

		Unstandardize	ed Coefficients	Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	122,245	9,922		12,321	,000
	Életkor	,035	,048	,052	,735	,467
	Testsúly	,125	,040	,247	3,089	,004
	Lakóhely	,120	,448	,018	,268	,790
	Vércukor	-12,761	1,270	-,759	-10,051	,000
2	(Constant)	122,290	9,792		12,489	,000
	Életkor	,033	,047	,050	,714	,480
	Testsúly	,128	,039	,253	3,319	,002
	Vércukor	-12,732	1,248	-,757	-10,199	,000
3	(Constant)	124,104	9,393		13,212	,000
	Testsúly	,135	,037	,267	3,642	,001
	Vércukor	-12,838	1,231	-,763	-10,429	,000

#### Coefficients<sup>a</sup>

		95,0% Confidence Interval for B		Correlations		
Model		Lower Bound	Upper Bound	Zero-order	Partial	Part
1	(Constant)	102,103	142,388			
	Életkor	-,062	,133	,331	,123	,048
	Testsúly	,043	,207	,627	,463	,203
	Lakóhely	-,790	1,030	,075	,045	,018
	Vércukor	-15,339	-10,184	-,889	-,862	-,661
2	(Constant)	102,431	142,148			
	Életkor	-,062	,128	,331	,118	,046
	Testsúly	,050	,206	,627	,484	,215
	Vércukor	-15,263	-10,200	-,889	-,862	-,662
3	(Constant)	105,071	143,136			
	Testsúly	,060	,210	,627	,514	,235
	Vércukor	-15,333	-10,344	-,889	-,864	-,673

a. Dependent Variable: Hatástartam

## **Excluded Variables**<sup>a</sup>

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
2	Lakóhely	,018 <sup>b</sup>	,268	,790	,045	,925
3	Lakóhely	,011 <sup>c</sup>	,166	,869	,028	,944
	Életkor	,050 <sup>c</sup>	,714	,480	,118	,873

a. Dependent Variable: Hatástartam

b. Predictors in the Model: (Constant), Vércukor, Életkor, Testsúly

c. Predictors in the Model: (Constant), Vércukor, Testsúly

## Residuals Statistics<sup>a</sup>

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	33,2536	61,5800	48,3910	9,00056	40
Residual	-7,02367	7,91391	,00000	3,83905	40
Std. Predicted Value	-1,682	1,465	,000	1,000	40
Std. Residual	-1,782	2,008	,000	,974	40

a. Dependent Variable: Hatástartam

NPAR TESTS
 /K-S(NORMAL)=RES\_1
 /MISSING ANALYSIS
 /KS\_SIM CIN(99) SAMPLES(10000).

#### **NPar Tests**

#### **Notes**

Output Created		21-APR-2024 23:02:56		
Comments				
Input	Data	C: \Users\Erika\egyetem\okta tas\aktualis\2023-24 tanev\statisztika2\gyakorla tok\statisztika2_gyak10\ha tástartam.sav		
	Active Dataset	DataSet1		
	Filter	<none></none>		
	Weight	<none></none>		
	Split File	<none></none>		
	N of Rows in Working Data File	42		
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.		
	Cases Used	Statistics for each test are based on all cases with valid data for the variable (s) used in that test.		
Syntax		NPAR TESTS /K-S(NORMAL)=RES_1 /MISSING ANALYSIS /KS_SIM CIN(99) SAMPLES(10000).		
Resources	Processor Time	00:00:00,02		
	Elapsed Time	00:00:00,03		
	Number of Cases Allowed <sup>a</sup>	786432		

a. Based on availability of workspace memory.

## One-Sample Kolmogorov-Smirnov Test

Unstandardized Residual

N			40		
Normal Parameters <sup>a,b</sup>	Mean			Mean	
	Std. Deviation		3,83904729		
Most Extreme Differences	Absolute	,067			
	Positive		Positive		,057
	Negative		-,067		
Test Statistic			,067		
Asymp. Sig. (2-tailed) <sup>c</sup>			,200 <sup>d</sup>		
Monte Carlo Sig. (2-tailed) <sup>e</sup>	Sig.	,927			
	99% Confidence Interval	Lower Bound	,920		
		Upper Bound	,933		

- a. Test distribution is Normal.
- b. Calculated from data.
- c. Lilliefors Significance Correction.
- d. This is a lower bound of the true significance.
- e. Lilliefors' method based on 10000 Monte Carlo samples with starting seed 1314643744.

EXAMINE VARIABLES=RES\_1

/PLOT BOXPLOT HISTOGRAM NPPLOT

/COMPARE GROUPS

/STATISTICS DESCRIPTIVES

/CINTERVAL 95

/MISSING LISTWISE

/NOTOTAL.

#### **Explore**

#### Notes

Output Created		21-APR-2024 23:07:27
Comments		
Input	Data	C: \Users\Erika\egyetem\okta tas\aktualis\2023-24 tanev\statisztika2\gyakorla tok\statisztika2_gyak10\ha tástartam.sav
	Active Dataset	DataSet1
	Filter	<none></none>
	Weight	<none></none>
	Split File	<none></none>
	N of Rows in Working Data File	42
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=RES_1 /PLOT BOXPLOT HISTOGRAM NPPLOT /COMPARE GROUPS /STATISTICS DESCRIPTIVES /CINTERVAL 95 /MISSING LISTWISE /NOTOTAL.
Resources	Processor Time	00:00:01,62
	Elapsed Time	00:00:01,14

## **Case Processing Summary**

Cases

	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Unstandardized Residual	40	95,2%	2	4,8%	42	100,0%

## **Descriptives**

			Statistic	Std. Error
Unstandardized Residual	Mean	,0000000	,60700667	
	95% Confidence Interval for Mean	Lower Bound	-1,2277869	
		Upper Bound	1,2277869	
	5% Trimmed Mean	5% Trimmed Mean		
	Median	,4481854		
	Variance	14,738		
	Std. Deviation	3,83904729		
	Minimum	-7,02367		
	Maximum		7,91391	
	Range	14,93757		
	Interquartile Range	5,50555		
	Skewness	Skewness		
	Kurtosis	-,516	,733	

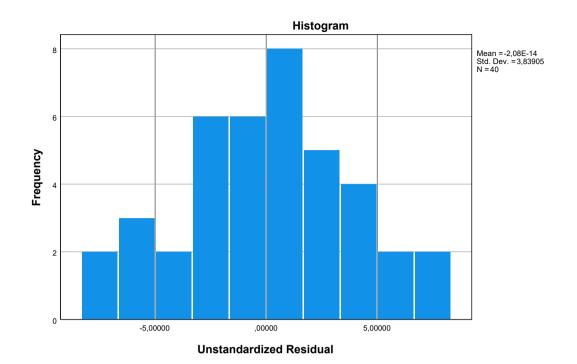
## **Tests of Normality**

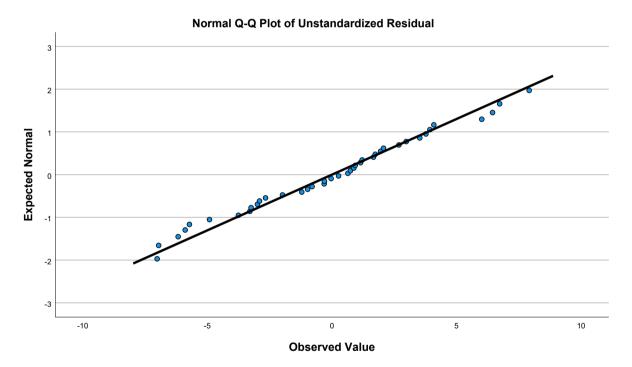
	Kolmogorov-Smirnov <sup>a</sup>				Shapiro-Wilk	(
	Statistic	df	Sig.	Statistic	df	Sig.
Unstandardized Residual	,067	40	,200*	,979	40	,644

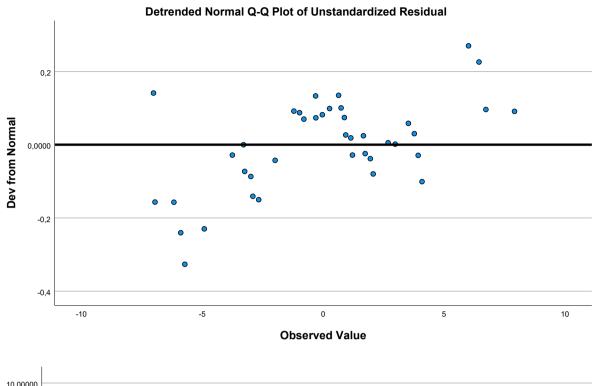
<sup>\*.</sup> This is a lower bound of the true significance.

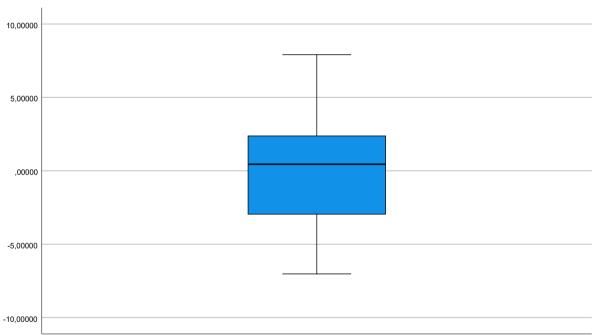
#### **Unstandardized Residual**

a. Lilliefors Significance Correction









Unstandardized Residual