

Regression02

	Selfcare	SubjHappns
1	19	5
2	31	8
3	24	6
4	30	6
5	9	1
6	15	4
7	27	8
8	20	3
9	30	8
10	17	2
11	18	4
12	27.3	7
13	20	6
14	20	6
15	37	7
16	23	7
17	28	8
18	25	7
19	21.5	4
20	26	7
21	15	6
22	19	3
23	15	5
24	27	4
25	15	4
26	24	4
27	32.6	4
28	34.6	7
29	17	4
30	10	2
31	11	2
32	18	3
33	24	4
34	23	6
35	35	4
36	23	5

Estimate of Regression02

Linear Regression

Independent attribute (continuous): Selfcare
 Dependent attribute (continuous): SubjHappns

Independent attribute: **Selfcare**
 Dependent attribute: **SubjHappns**
 Sample count: **70**

Equation of least-squares regression line:

$$\text{SubjHappns} = 0.196416 \text{ Selfcare} + 0.77055$$

Correlation coefficient, $r = 0.716592$

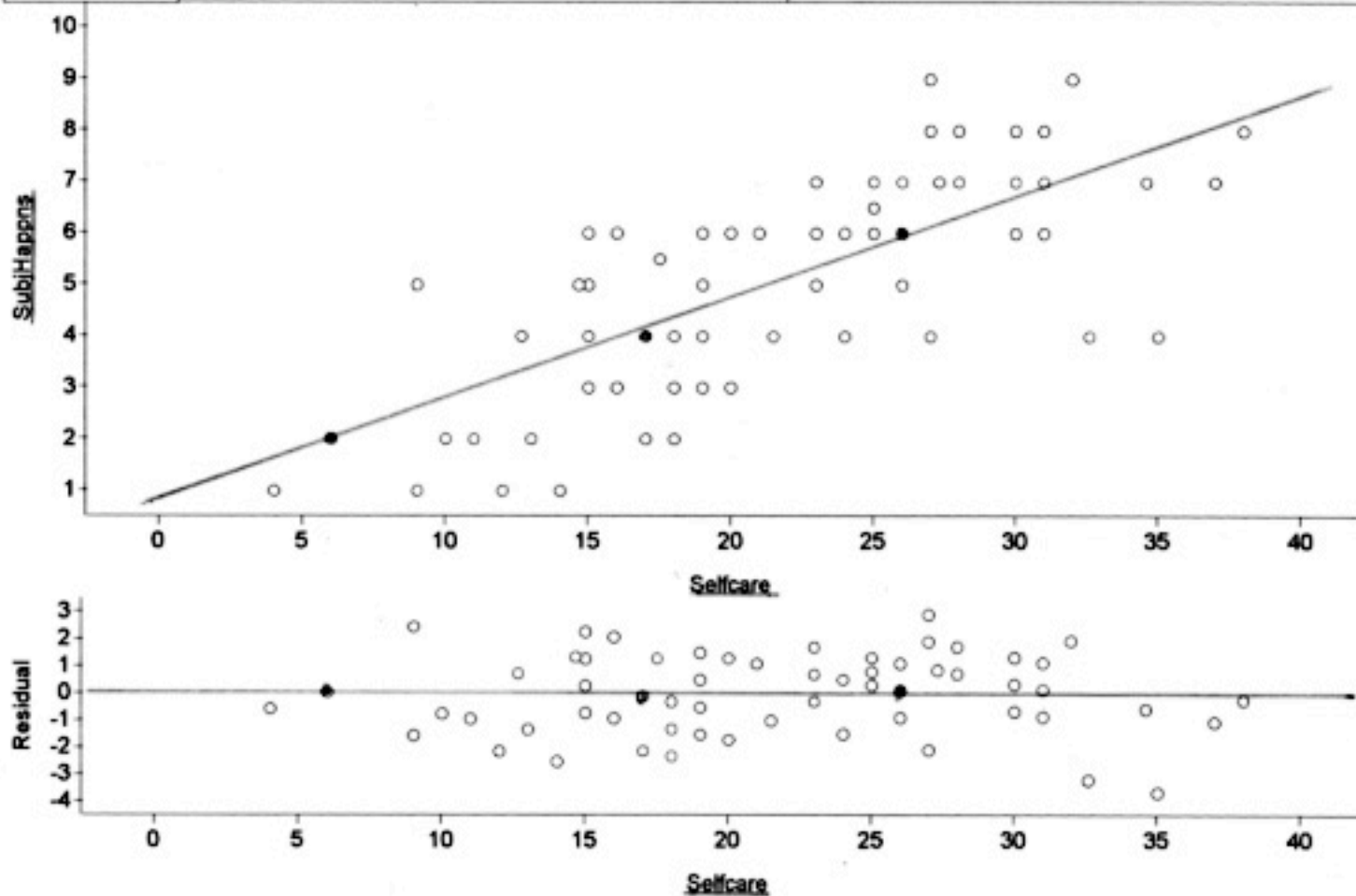
r-squared = **0.51350**, indicating that **51.350%** of the variation in **SubjHappns** is accounted for by **Selfcare**.

The best estimate for the slope is **0.196416** +/- **0.046263** at a **95%** confidence level. (The standard error of the slope is **0.023184**.)

When **Selfcare = 0**, the predicted value for a future observation of **SubjHappns** is **0.770551** +/- **3.03529**.

Regression02

Scatter Plot



*SubjHappns = 0.196 Selfcare + 0.77 ; $r^2 = 0.51$
 Coefficient of determination*

37	26	5
38	16	6
39	18	2
40	32	9
41	21	6
42	31	6
43	14	1
44	21	6
45	20	6
46	21.5	4
47	12	1
48	16	3
49	9	5
50	28	7
51	38	8
52	23	6
53	25	6
54	24	4
55	6	2
56	12.66	4
57	14.66	5
58	4	1
59	18	4
60	19	6
61	26	6
62	25	6.5
63	19	4
64	13	2
65	23	6
66	31	7
67	30	7
68	17.5	5.5
69	27	9
70	15	3

Test of Regression02

Test Correlation ▼

First Attribute (continuous): Selfcare

Second Attribute (continuous): SubjHappns

Sample count: 70

The observed correlation between **Selfcare** and **SubjHappns** is **0.716592**

Null hypothesis: The population correlation is 0.

Alternative hypothesis: The population correlation is *not equal to 0*.

The test statistic, Student's t, is **8.472**. There are **68** degrees of freedom (two less than the sample size).

If it were true that the correlation were equal to 0 (the null hypothesis), and the sampling process were performed repeatedly, the probability of getting a value for Student's t *with an absolute value*

\geq would be **< 0.0001**.

Test of Regression02

First attribute (categorical): Selfcare

test for Independance

test for Independance

Second attribute (categorical): SubjHappns

		Selfcare																			
		4	6	9	10	11	12	12.66	13	14	14.66	15	16	17	17.5	18	19	20	21	21.5	
SubjHappns	1	1 (0.1)	0 (0.1)	1 (0.1)	0 (0.1)	0 (0.1)	1 (0.1)	0 (0.1)	0 (0.1)	1 (0.1)	0 (0.1)	0 (0.3)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.2)	0 (0.2)	0 (0.2)	0 (0.1)	0 (0.1)	
	2	0 (0.1)	1 (0.1)	0 (0.2)	1 (0.1)	1 (0.1)	0 (0.1)	0 (0.1)	1 (0.1)	0 (0.1)	0 (0.1)	0 (0.4)	0 (0.2)	1 (0.2)	0 (0.1)	1 (0.3)	0 (0.3)	0 (0.3)	0 (0.2)	0 (0.2)	
	3	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.1)	1 (0.4)	1 (0.1)	0 (0.1)	0 (0.1)	1 (0.3)	1 (0.3)	1 (0.3)	0 (0.1)	0 (0.1)	
	4	0 (0.2)	0 (0.2)	0 (0.4)	0 (0.2)	0 (0.2)	0 (0.2)	1 (0.2)	0 (0.2)	0 (0.2)	0 (0.2)	2 (1.1)	0 (0.4)	1 (0.4)	0 (0.2)	2 (0.9)	1 (0.9)	0 (0.9)	0 (0.4)	2 (0.4)	
	5	0 (0.1)	0 (0.1)	1 (0.2)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.1)	1 (0.1)	1 (0.4)	0 (0.2)	0 (0.2)	0 (0.1)	0 (0.3)	1 (0.3)	0 (0.3)	0 (0.2)	0 (0.2)	
	5.5	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.1)	0 (0.0)	0 (0.0)	1 (0.0)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.0)	0 (0.0)
	6	0 (0.2)	0 (0.2)	0 (0.5)	0 (0.2)	0 (0.2)	0 (0.2)	0 (0.2)	0 (0.2)	0 (0.2)	0 (0.2)	1 (1.1)	1 (0.5)	0 (0.5)	0 (0.2)	0 (0.9)	1 (0.9)	3 (0.9)	2 (0.5)	0 (0.5)	
	6.5	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.1)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.0)	0 (0.0)
	7	0 (0.1)	0 (0.1)	0 (0.3)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.6)	0 (0.3)	0 (0.3)	0 (0.1)	0 (0.5)	0 (0.5)	0 (0.5)	0 (0.3)	0 (0.3)	
	8	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.4)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.3)	0 (0.3)	0 (0.3)	0 (0.1)	0 (0.1)	
9	0 (0.0)	0 (0.0)	0 (0.1)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.0)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.1)	
Column Summary		1	1	2	1	1	1	1	1	1	1	5	2	2	1	4	4	4	2	2	

First attribute: **Selfcare**
 Number of categories: **34**
 Second attribute: **SubjHappns**
 Number of categories: **11**

Warning: 374 out of 374 cells have expected values less than 5.

Alternative hypothesis: There is an association between **Selfcare** and **SubjHappns**

The test statistic, chi-square, is **394.9**. There are **330** degrees of freedom (the number of rows minus one times the number of columns minus one).

If it were true that **Selfcare** were independent of **SubjHappns** (the null hypothesis), and the sampling process were performed repeatedly, the probability of getting a value for chi-square this great or greater *would be 0.0081*

The numbers in parentheses in the table are expected counts.

23	24	25	26	27	27.3	28	30	31	32	32.6	34.6	35	37	38	Row Summary
0 (0.3)	0 (0.2)	0 (0.2)	0 (0.2)	0 (0.2)	0 (0.1)	0 (0.1)	0 (0.2)	0 (0.2)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.1)	4
0 (0.4)	0 (0.3)	0 (0.3)	0 (0.3)	0 (0.3)	0 (0.1)	0 (0.2)	0 (0.3)	0 (0.3)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.1)	6
0 (0.4)	0 (0.3)	0 (0.2)	0 (0.2)	0 (0.2)	0 (0.1)	0 (0.1)	0 (0.2)	0 (0.2)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.1)	5
0 (1.1)	3 (0.9)	0 (0.6)	0 (0.6)	1 (0.6)	0 (0.2)	0 (0.4)	0 (0.6)	0 (0.6)	0 (0.2)	1 (0.2)	0 (0.2)	1 (0.2)	0 (0.2)	0 (0.2)	15
1 (0.4)	0 (0.3)	0 (0.3)	1 (0.3)	0 (0.3)	0 (0.1)	0 (0.2)	0 (0.3)	0 (0.3)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.1)	6
0 (0.1)	0 (0.1)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1
3 (1.1)	1 (0.9)	1 (0.7)	1 (0.7)	0 (0.7)	0 (0.2)	0 (0.5)	1 (0.7)	1 (0.7)	0 (0.2)	0 (0.2)	0 (0.2)	0 (0.2)	0 (0.2)	0 (0.2)	16
0 (0.1)	0 (0.1)	1 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1
1 (0.6)	0 (0.5)	1 (0.4)	1 (0.4)	0 (0.4)	1 (0.1)	1 (0.3)	1 (0.4)	1 (0.4)	0 (0.1)	0 (0.1)	1 (0.1)	0 (0.1)	1 (0.1)	0 (0.1)	9
0 (0.4)	0 (0.3)	0 (0.2)	0 (0.2)	1 (0.2)	0 (0.1)	1 (0.1)	1 (0.2)	1 (0.2)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.1)	0 (0.1)	1 (0.1)	5
0 (0.1)	0 (0.1)	0 (0.1)	0 (0.1)	1 (0.1)	0 (0.0)	0 (0.1)	0 (0.1)	0 (0.1)	1 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2
5	4	3	3	3	1	2	3	3	1	1	1	1	1	1	70

would be 0.0081.