Report Homework 2

The following Analysis was performed in order to explore whether the state health care system have an effect on the treatment success rate in the tuberculosis treatment. For this analysis a linear regression analyses was performed.
Therefore, Tuberculosis treatment success (TSR) was chosen as the independent Variable and amount of hospital beds (HB) per 100 people as a measure for the quality of the health care system as an dependent variable.
In order to be Shure that the seen effect can be attributed to the quality of the health care system, GDP growth was chosen as a control variable.
The Following data was retrieved from the world bank data base.

The following Hypnosis was established:

H_0: $\beta_1 = 0$
H_1: $\beta_1 \neq 0$

After the Analysis the following formula was found:

$$\widehat{TSR} = (2.276 \times 10^{-15}) + (-0.942 * HB) + (0.537 * GDP_{Growth})$$

Regression Table:

Variable	Estimates	Standard error	t-statistic
Constant	$2.275 * 10^{-15}$	1.711356	$1.329914 * 10^{-15}$
Hospital beds	$-9.421203 * 10^{-1*}$	0.753767	-1.2498822
GDP Growth	$5.368216 * 10^{-1}$	0.423456	1.267714

Hospital beds is surprisingly negatively correlated with treatment success.