

Simple Logistic Regression Using Continuous Predictor Hypothetical Widget Example

```
logistic regression vars=success with yrsexp
  /print=summary ci(.95) goodfit iter(1)
  /classplot
  /save pred(predsuc) resid(residsuc).
```

```
graph
  /scatterplot(bivar)=yrsexp with predsuc.
```

```
graph
  /scatterplot(bivar)=yrsexp with residsuc.
```

Block 0: Beginning Block

Iteration History^{a,b,c}

Iteration	-2 Log likelihood	Coefficients	
		Constant	
Step 1	69.235	.080	
0 2	69.235	.080	

- a. Constant is included in the model.
- b. Initial -2 Log Likelihood: 69.235
- c. Estimation terminated at iteration number 2 because parameter estimates changed by less than .001.

Classification Table^{a,b}

		Predicted		
		success		Percentage Correct
Observed		0	1	
Step 0 success	0	0	24	.0
	1	0	26	100.0
Overall Percentage				52.0

- a. Constant is included in the model.
- b. The cut value is .500

Variables in the Equation

	B	S.E.	Wald	df	Sig.	Exp(B)
Step 0 Constant	.080	.283	.080	1	.777	1.083

Variables not in the Equation

	Score	df	Sig.
Step 0 Variables yrsexp	13.127	1	.000
Overall Statistics	13.127	1	.000

Block 1: Method = Enter

Iteration History^{a,b,c,d}

Iteration	-2 Log likelihood	Coefficients	
		Constant	yrsexp
Step 1	55.256	-1.628	.158
1 2	54.933	-1.942	.187
3	54.932	-1.968	.190
4	54.932	-1.968	.190

- a. Method: Enter
- b. Constant is included in the model.
- c. Initial -2 Log Likelihood: 69.235
- d. Estimation terminated at iteration number 4 because parameter estimates changed by less than .001.

Omnibus Tests of Model Coefficients					Model Summary			
		Chi-square	df	Sig.	Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
Step 1	Step	14.303	1	.000	1	54.932 ^a	.249	.332
	Block	14.303	1	.000				
	Model	14.303	1	.000				

a. Estimation terminated at iteration number 4 because parameter estimates changed by less than .001.

Hosmer and Lemeshow Test				Contingency Table for Hosmer and Lemeshow Test					
Step	Chi-square	df	Sig.		success = 0		success = 1		
					Observed	Expected	Observed	Expected	Total
1	4.083	7	.770	Step 1	6	5.177	0	.823	6
				1	4	4.806	2	1.194	6
				2	3	3.432	2	1.568	5
				3	4	3.249	2	2.751	6
				4	2	2.731	4	3.269	6
				5	3	2.140	4	4.860	7
				6	1	1.116	4	3.884	5
				7	1	.653	3	3.347	4
				8	0	.695	5	4.305	5
				9					

Classification Table^a

		Predicted			Percentage Correct	
		success		0		1
		0	1			
Step 1	success	0	1	17	7	70.8
		1		6	20	76.9
	Overall Percentage					74.0

a. The cut value is .500

Variables in the Equation

Step	Variable	B	S.E.	Wald	df	Sig.	Exp(B)	95.0% C.I. for EXP(B)	
								Lower	Upper
Step 1	yrsexp	.190	.058	10.781	1	.001	1.209	1.079	1.354
	Constant	-1.968	.709	7.712	1	.005	.140		

a. Variable(s) entered on step 1: yrsexp.

