



## Multiple Regression

Three tables are presented. The first table is an example of a 4-step hierarchical regression, which involves the interaction between two continuous scores. In this example, structural (or demographic) variables are entered at Step 1 (Model 1), age (centered) is added at Step 2 (Model 2), depression (centered) is added at Step 3 (Model 3), and the interaction between the centered age and centered depression scores is added at Step 4 (Model 4).

The second table is an example of a hierarchical regression that involves the interaction between a categorical score and a continuous score. In this example, structural (or demographic) variables are entered at Step 1 (Model 1), three dummy variables representing information about number of divorces is added at Step 2 (Model 2), depression is added at Step 3 (Model 3), and the interaction between each of the dummy variables and depression is added at Step 4 (Model 4).

Table 3 is an example of a simple regression performed separately for husbands and for wives.

For all regression analyses, some report of effect size should be given for the overall model (such as  $R^2$ ) as well as for the individual predictors (such as converting the  $F$ -ratios or  $t$ -ratios associated with each predictor in the final equation to an effect-size  $r$ ). We recommend reporting both the unstandardized  $B$  and the standardized  $\beta$ . Additional measures of strength of effects such as squared semipartial correlations might also be reported. See

Rosenthal, R. (1994). Parametric measures of effect size. In H. Cooper & L. V. Hedges (Eds.), *The handbook of research synthesis* (pp. 231 – 244). New York: Russell Sage Foundation.

These tables were prepared so that they would be clear to reviewers. If a manuscript is accepted for publication, the author may be asked to submit a version following APA guidelines on spacing and margins.

Table 1

*Summary of Hierarchical Regression Analysis for Variables Predicting Wives' Marital Quality (N = 538)*

Variable	Model 1			Model 2			Model 3			Model 4		
	<i>B</i>	<i>SE B</i>	$\beta$	<i>B</i>	<i>SE B</i>	$\beta$	<i>B</i>	<i>SE B</i>	$\beta$	<i>B</i>	<i>SE(B)</i>	$\beta$
Education	0.58	0.27	.10*	-0.99	0.59	-.08	-1.67	0.54	-.13**	-1.66	0.55	-.13**
Income	-1.16	0.59	-.10	0.33	0.28	.06	0.12	0.25	.02	0.12	0.25	.02
Age				0.22	0.07	.13**	0.14	0.06	.08*	0.13	0.07	.08*
Depression							-0.71	0.06	-.41**	-0.71	0.07	-.41**
Age x depression										-0.01	0.01	-.01
$R^2$		.01			.16			.43			.43	
<i>F</i> for change in $R^2$		2.87			8.94**			105.79**			0.18	

*Note:* Age and depression were centered at their means.

\* $p < .05$ . \*\* $p < .01$ .

Table 2

*Summary of Hierarchical Regression Analysis for Variables Predicting Wives' Marital Quality (N = 538)*

Variable	Model 1			Model 2			Model 3			Model 4		
	<i>B</i>	<i>SE B</i>	$\beta$	<i>B</i>	<i>SE B</i>	$\beta$	<i>B</i>	<i>SE B</i>	$\beta$	<i>B</i>	<i>SE(B)</i>	$\beta$
Age	0.25	0.08	.13**	0.22	0.10	.12*	0.12	0.09	.07	0.12	0.09	.06
Education	-0.95	0.60	-.07	-0.88	0.65	-.07	-1.47	0.59	-.12**	-1.56	0.59	-.12**
Income	0.27	0.28	.04	0.27	0.28	.04	0.02	0.26	.00	0.01	0.26	.00
Number of divorces												
1 versus 0				1.40	1.64	.04	1.43	1.50	.04	3.84	2.06	.12
2 versus 0				-0.13	2.68	.00	0.40	2.44	.00	3.16	3.43	.05
> 2 versus 0				-0.45	3.07	.00	1.41	2.80	.02	-0.46	4.07	-.01
Depression							-0.72	0.06	-.42**	-0.65	0.08	-.37**
Number of divorces $\times$ depression												
1 versus 0 $\times$ depression										-0.28	0.16	-.11
2 versus 0 $\times$ depression										-0.31	0.28	-.06
> 2 versus 0 $\times$ depression										0.16	0.28	.03
$R^2$		.02			.02			.19			.20	

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<i>F</i> for change in $R^2$	4.66**	0.36	106.76**	1.54
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*Note:* Number of divorces was represented as three dummy variables with 0 divorces serving as the reference group.

\* $p < .05$ . \*\* $p < .01$ .

Table 3

*Summary of Simple Regression Analyses for Variables Predicting Wives' Marital Quality and Husbands' Marital Quality (N = 155)*

Variable	Wives			Husbands		
	<i>B</i>	<i>SE B</i>	$\beta$	<i>B</i>	<i>SE B</i>	$\beta$
Neuroticism	-0.34	0.16	-.17*	0.20	0.21	.09
Extraversion	0.08	0.19	.03	0.28	0.25	.11
Openness	0.07	0.19	.02	-0.14	0.18	-.07
Agreeableness	0.74	0.24	.24**	0.48	0.24	.17*
Conscientiousness	0.17	0.21	.06	0.45	0.23	.17*
<i>R</i> <sup>2</sup>		.15			.07	
<i>F</i>		5.48**			2.42*	

\**p* < .05. \*\**p* < .01.