

Hierarchical Regression Example Salary and Publications Example (Cohen, Cohen, West, & Aiken, Table 3.2.1) *Entering PUBS first*

Syntax

```
get file='c:\jason\spsswin\da2\ccwa3_2_1.sav'.

regression vars=salary time pubs
  /descriptives=mean stdev
  /statistics=anova r coeff ses cha
  /dependent=salary
  /method=enter pubs /enter time.
```

Output

Regression

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.588 ^a	.346	.295	6623.61975	.346	6.864	1	13	.021
2	.728 ^b	.530	.452	5839.23054	.185	4.727	1	12	.050

a. Predictors: (Constant), PUBS number of publications

b. Predictors: (Constant), PUBS number of publications, TIME years since PhD

ANOVA^c

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.01E+08	1	301137778.7	6.864	.021 ^a
	Residual	5.70E+08	13	43872338.53		
	Total	8.71E+08	14			
2	Regression	4.62E+08	2	231159410.2	6.780	.011 ^b
	Residual	4.09E+08	12	34096613.27		
	Total	8.71E+08	14			

a. Predictors: (Constant), PUBS number of publications

b. Predictors: (Constant), PUBS number of publications, TIME years since PhD

c. Dependent Variable: SALARY annual salary in dollars

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		t	Sig.
		B	Std. Error	Beta	Std. Error		
1	(Constant)	46357.449	3072.730			15.087	.000
	PUBS number of publications	335.526	128.067	.588	.224	2.620	.021
2	(Constant)	43082.394	3099.493			13.900	.000
	PUBS number of publications	121.801	149.699	.213	.262	.814	.432
	TIME years since PhD	982.867	452.057	.570	.262	2.174	.050

a. Dependent Variable: SALARY annual salary in dollars

Hierarchical Regression Example
Salary and Publications Example (Cohen, Cohen, West, & Aiken, Table 3.2.1)
Entering TIME first

Syntax

```
get file='c:\jason\spsswin\da2\ccwa3_2_1.sav'.

regression vars=salary time pubs
  /descriptives=mean stdev
  /statistics=anova r coeff ses cha
  /dependent=salary
  /method=enter time /enter pubs.
```

Output

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.710 ^a	.505	.466	5762.82286	.505	13.241	1	13	.003
2	.728 ^b	.530	.452	5839.23054	.026	.662	1	12	.432

a. Predictors: (Constant), TIME years since PhD

b. Predictors: (Constant), TIME years since PhD, PUBS number of publications

ANOVA^c

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.40E+08	1	439746525.1	13.241	.003 ^a
	Residual	4.32E+08	13	33210127.27		
	Total	8.71E+08	14			
2	Regression	4.62E+08	2	231159410.2	6.780	.011 ^b
	Residual	4.09E+08	12	34096613.27		
	Total	8.71E+08	14			

a. Predictors: (Constant), TIME years since PhD

b. Predictors: (Constant), TIME years since PhD, PUBS number of publications

c. Dependent Variable: SALARY annual salary in dollars

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		t	Sig.
		B	Std. Error	Beta	Std. Error		
1	(Constant)	43658.594	2978.022			14.660	.000
	TIME years since PhD	1224.392	336.476	.710	.195	3.639	.003
2	(Constant)	43082.394	3099.493			13.900	.000
	TIME years since PhD	982.867	452.057	.570	.262	2.174	.050
	PUBS number of publications	121.801	149.699	.213	.262	.814	.432

a. Dependent Variable: SALARY annual salary in dollars