

## REGRESSION ANALYSIS (PROCESS)

- Model 4, Confidence Intervals 95, Number of Bootstrap Samples 5000
- Bootstrap Inference for Model Coefficients
- Options: Standardized Effects / Show Total Effect Model

### ➔ Matriz

Run MATRIX procedure:

\*\*\*\*\* PROCESS Procedure for SPSS Version 4.2 \*\*\*\*\*

Written by Andrew F. Hayes, Ph.D. [www.afhayes.com](http://www.afhayes.com)  
Documentation available in Hayes (2022). [www.guilford.com/p/hayes3](http://www.guilford.com/p/hayes3)

\*\*\*\*\*

Model : 4

Y : Y

X : X

M : M

Sample

Size: 186

\*\*\*\*\*

OUTCOME VARIABLE:

M

Model Summary

R	R-sq	MSE	F	df1	df2	p
,0169	,0003	,8982	,0528	1,0000	184,0000	,8185

Model

	coeff	se	t	p	LLCI	ULCI
constant	3,5912	,0993	36,1480	,0000	3,3952	3,7872
X	,0319	,1390	,2298	,8185	-,2423	,3062

Standardized coefficients

	coeff
X	,0338

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OUTCOME VARIABLE:

Y

Model Summary

R	R-sq	MSE	F	df1	df2	p
,1805	,0326	1,4284	3,0828	2,0000	183,0000	,0482

Model

	coeff	se	t	p	LLCI	ULCI
constant	2,3922	,3566	6,7083	,0000	1,6886	3,0958
X	,3988	,1753	2,2743	,0241	,0528	,7447
M	,0891	,0930	,9580	,3393	-,0944	,2725

Standardized coefficients

	coeff
X	,3299
M	,0697

\*\*\*\*\* TOTAL EFFECT MODEL \*\*\*\*\*

OUTCOME VARIABLE:

Y

Model Summary

	R	R-sq	MSE	F	df1	df2	p
	,1666	,0277	1,4278	5,2502	1,0000	184,0000	,0231

Model

	coeff	se	t	p	LLCI	ULCI
constant	2,7121	,1253	21,6519	,0000	2,4650	2,9592
X	,4016	,1753	2,2913	,0231	,0558	,7474

Standardized coefficients

	coeff
X	,3323

\*\*\*\*\* TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y \*\*\*\*\*

Total effect of X on Y

Effect	se	t	p	LLCI	ULCI	c_ps	
	,4016	,1753	2,2913	,0231	,0558	,7474	,3323

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI	c'_ps	
	,3988	,1753	2,2743	,0241	,0528	,7447	,3299

Indirect effect(s) of X on Y:

Effect	BootSE	BootLLCI	BootULCI	
M	,0028	,0175	-,0348	,0415

Partially standardized indirect effect(s) of X on Y:

Effect	BootSE	BootLLCI	BootULCI	
M	,0024	,0145	-,0292	,0345

\*\*\*\*\* BOOTSTRAP RESULTS FOR REGRESSION MODEL PARAMETERS \*\*\*\*\*

OUTCOME VARIABLE:

M

	Coeff	BootMean	BootSE	BootLLCI	BootULCI
constant	3,5912	3,5933	,0916	3,4135	3,7702
X	,0319	,0265	,1382	-,2511	,2872

OUTCOME VARIABLE:

Y

	Coeff	BootMean	BootSE	BootLLCI	BootULCI
constant	2,3922	2,3984	,3298	1,7694	3,0653
X	,3988	,4024	,1757	,0604	,7512
M	,0891	,0879	,0886	-,0953	,2549

\*\*\*\*\* ANALYSIS NOTES AND ERRORS \*\*\*\*\*

Level of confidence for all confidence intervals in output:  
95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:  
5000

NOTE: Standardized coefficients for dichotomous or multicategorical X are in partially standardized form.

----- END MATRIX -----

## Regression Analysis (PROCESS) with Covariates

- Model 4, Confidence Intervals 95, Number of Bootstrap Samples 5000
- Bootstrap Inference for Model Coefficients
- Options: Standardized Effects and Show Total Effect Model

### ➔ Matriz

Run MATRIX procedure:

\*\*\*\*\* PROCESS Procedure for SPSS Version 4.2 \*\*\*\*\*

Written by Andrew F. Hayes, Ph.D. [www.afhayes.com](http://www.afhayes.com)  
Documentation available in Hayes (2022). [www.guilford.com/p/hayes3](http://www.guilford.com/p/hayes3)

\*\*\*\*\*

Model : 4

Y : Y

X : X

M : M

Covariates:

AGE GEND EDUC FAMI

Sample

Size: 186

\*\*\*\*\*

OUTCOME VARIABLE:

M

Model Summary

R	R-sq	MSE	F	df1	df2	p
,3264	,1066	,8205	4,2940	5,0000	180,0000	,0010

Model

	coeff	se	t	p	LLCI	ULCI
constant	2,7906	,5170	5,3977	,0000	1,7704	3,8107
X	,0149	,1355	,1102	,9123	-,2524	,2822
AGE	,0112	,0063	1,7694	,0785	-,0013	,0237
GEND	,0533	,1298	,4109	,6816	-,2028	,3095
EDUC	-,1583	,0940	-1,6848	,0938	-,3437	,0271
FAMI	,3175	,0936	3,3922	,0009	,1328	,5022

Standardized coefficients

	coeff
X	,0158
AGE	,1267
GEND	,0293
EDUC	-,1206
FAMI	,2452

\*\*\*\*\*

OUTCOME VARIABLE:

Y

Model Summary

R	R-sq	MSE	F	df1	df2	p
,1954	,0382	1,4519	1,1846	6,0000	179,0000	,3165

Model

	coeff	se	t	p	LLCI	ULCI
constant	2,6499	,7413	3,5748	,0005	1,1871	4,1127
X	,4102	,1802	2,2764	,0240	,0546	,7658
M	,1190	,0991	1,2005	,2315	-,0766	,3147
AGE	-,0027	,0085	-,3161	,7523	-,0194	,0141
GEND	-,0853	,1727	-,4937	,6221	-,4262	,2556
EDUC	,0289	,1260	,2296	,8186	-,2196	,2775
FAMI	-,0902	,1284	-,7020	,4836	-,3436	,1633

# Standardized coefficients

```

coeff
X      ,3394
M      ,0931
AGE    -,0237
GEND   -,0366
EDUC   ,0172
FAMI   -,0545

```

## \*\*\*\*\* TOTAL EFFECT MODEL \*\*\*\*\*

OUTCOME VARIABLE:

Y

### Model Summary

R	R-sq	MSE	F	df1	df2	p
,1745	,0304	1,4554	1,1305	5,0000	180,0000	,3459

### Model

	coeff	se	t	p	LLCI	ULCI
constant	2,9821	,6885	4,3309	,0000	1,6234	4,3407
X	,4120	,1804	2,2835	,0236	,0560	,7680
AGE	-,0014	,0084	-,1603	,8729	-,0180	,0153
GEND	-,0789	,1729	-,4566	,6485	-,4201	,2622
EDUC	,0101	,1251	,0806	,9359	-,2368	,2570
FAMI	-,0524	,1247	-,4201	,6749	-,2983	,1936

# Standardized coefficients

```

coeff
X      ,3409
AGE    -,0120
GEND   -,0339
EDUC   ,0060
FAMI   -,0316

```

## \*\*\*\*\* TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y \*\*\*\*\*

### Total effect of X on Y

Effect	se	t	p	LLCI	ULCI	c_ps
,4120	,1804	2,2835	,0236	,0560	,7680	,3409

### Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI	c'_ps
,4102	,1802	2,2764	,0240	,0546	,7658	,3394

### Indirect effect(s) of X on Y:

Effect	BootSE	BootLLCI	BootULCI
M	,0018	,0206	-,0412

### Partially standardized indirect effect(s) of X on Y:

Effect	BootSE	BootLLCI	BootULCI
M	,0015	,0170	-,0343

## \*\*\*\*\* BOOTSTRAP RESULTS FOR REGRESSION MODEL PARAMETERS \*\*\*\*\*

OUTCOME VARIABLE:

M

	Coeff	BootMean	BootSE	BootLLCI	BootULCI
constant	2,7906	2,7982	,5189	1,7890	3,8436
X	,0149	,0141	,1343	-,2465	,2762
AGE	,0112	,0112	,0056	,0002	,0224
GEND	,0533	,0521	,1264	-,1979	,3090
EDUC	-,1583	-,1613	,0843	-,3288	,0050
FAMI	,3175	,3190	,0929	,1360	,4979

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OUTCOME VARIABLE:  
Y

	Coeff	BootMean	BootSE	BootLLCI	BootULCI
constant	2,6499	2,6809	,7423	1,2291	4,1383
X	,4102	,4080	,1762	,0656	,7576
M	,1190	,1183	,0929	-,0700	,2967
AGE	-,0027	-,0030	,0084	-,0196	,0132
GEND	-,0853	-,0844	,1803	-,4282	,2679
EDUC	,0289	,0244	,1330	-,2459	,2786
FAMI	-,0902	-,0900	,1212	-,3331	,1475

\*\*\*\*\* ANALYSIS NOTES AND ERRORS \*\*\*\*\*

Level of confidence for all confidence intervals in output:  
95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:  
5000

NOTE: Standardized coefficients for dichotomous or multicategorical X are in  
partially standardized form.

----- END MATRIX -----