# Wave IV Polygenic Scores – SSGAC

#### Title

Wave IV Polygenic Scores – SSGAC

#### Abstract

Polygenic scores (PGS) constructed by the Social Science Genetic Association Consortium (SSGAC) are available for Add Health respondents who provided archival saliva samples for genetic testing at Wave IV. This data file contains educational attainment, cognitive performance, depression, neuroticism, and subjective well-being scores based on standard GWAS summary statistics and multilevel analysis (2 scores for each construct). Additional multivariate analysis scores for highest level math taken and math ability are also included.

Variables: 23

Observations: 5,690

#### Variables

### 🕙 Wave IV Polygenic Scores – SSGAC

- SPGSEA3G EDUCATIONAL ATTAINMENT, SSGAC GWAS
- SPGSEA3M EDUCATIONAL ATTAINMENT, SSGAC MTAG
- SPGSCPG COGNITIVE PERFORMANCE, SSGAC GWAS
- SPGSCPM COGNITIVE PERFORMANCE, SSGAC MTAG
- SPGSHMM HIGHEST-LEVEL MATH TAKEN, SSGAC MTAG
- SPGSMAM SELF-REPORTED MATH ABILITY, SSGAC MTAG
- SPGSDEPG DEPRESSION, SSGAC, GWAS
- SPGSDEPM DEPRESSION, SSGAC MTAG
- SPGSNEUG NEUROTICISM, SSGAC GWAS
- SPGSNEUM NEUROTICISM, SSGAC MTAG
- SPGSSWBG SUBJECTIVE WELL-BEING, SSGAC GWAS
- SPGSSWBM SUBJECTIVE WELL-BEING, SSGAC MTAG
- SPGSPC1 RANDOMIZED PCS, SSGAC 1ST THRU 5TH
- SPGSPC2 RANDOMIZED PCS, SSGAC 1ST THRU 5TH
- SPGSPC3 RANDOMIZED PCS, SSGAC 1ST THRU 5TH
- SPGSPC4 RANDOMIZED PCS, SSGAC 1ST THRU 5TH
- SPGSPC5 RANDOMIZED PCS, SSGAC 1ST THRU 5TH
- SPGSPC6 RANDOMIZED PCS, SSGAC 6TH THRU 10TH
- SPGSPC7 RANDOMIZED PCS, SSGAC 6TH THRU 10TH
- SPGSPC8 RANDOMIZED PCS, SSGAC 6TH THRU 10TH
- SPGSPC9 RANDOMIZED PCS, SSGAC 6TH THRU 10TH
- SPGSPC10 RANDOMIZED PCS, SSGAC 6TH THRU 10TH

#### 🚳 SPGSEA3G - EDUCATIONAL ATTAINMENT, SSGAC GWAS

Туре	Numeric (Double)
Description	Polygenic score for educational attainment, obtained using standard GWAS
	results

#### 🌃 SPGSEA3M - EDUCATIONAL ATTAINMENT, SSGAC MTAG

Туре	Numeric (Double)
Description	Polygenic score for educational attainment, obtained using multivariate analysis of educational attainment, cognitive performance, self-reported math ability and highest-level math class taken

#### SPGSCPG - COGNITIVE PERFORMANCE, SSGAC GWAS

Туре	Numeric (Double)
Description	Polygenic score for cognitive performance, obtained using standard GWAS results

#### <sup>≪</sup> SPGSCPM - COGNITIVE PERFORMANCE, SSGAC MTAG

Туре	Numeric (Double)
Description	Polygenic score for cognitive performance, obtained using multivariate
	analysis of educational attainment, cognitive performance, self-reported
	math ability and highest-level math class taken

# SPGSHMM - HIGHEST-LEVEL MATH TAKEN, SSGAC MTAG Type Numeric (Double) Description Polygenic score for highest-level math class taken, obtained using multivariate analysis of educational attainment, cognitive performance, self-reported math ability and highest-level math class taken

# SPGSMAM - SELF-REPORTED MATH ABILITY, SSGAC MTAG Type Numeric (Double) Description Polygenic score for self-reported math ability, obtained using multivariate

analysis of educational attainment, cognitive performance, self-reported math ability and highest-level math class taken

#### 🌃 SPGSDEPG - DEPRESSION, SSGAC, GWAS

Туре	Numeric (Double)
Description	Polygenic score for depression, obtained using standard GWAS results

#### 🚳 SPGSDEPM - DEPRESSION, SSGAC MTAG

Туре	Numeric (Double)
Description	Polygenic score for depression, obtained using multivariate analysis of
	depression, neuroticism and subjective well-being

#### SPGSNEUG - NEUROTICISM, SSGAC GWAS

Туре	Numeric (Double)
Description	Polygenic score for neuroticism, obtained using standard GWAS results

#### SPGSNEUM - NEUROTICISM, SSGAC MTAG

Туре	Numeric (Double)
Description	Polygenic score for neuroticism, obtained using multivariate analysis of
	depression, neuroticism and subjective well-being

#### SPGSSWBG - SUBJECTIVE WELL-BEING, SSGAC GWAS

Туре	Numeric (Double)
Description	Polygenic score for subjective well-being, obtained using standard GWAS results

#### 🚳 SPGSSWBM - SUBJECTIVE WELL-BEING, SSGAC MTAG

Туре	Numeric (Double)
Description	Polygenic score for subjective well-being, obtained using multivariate analysis of depression, neuroticism and subjective well-being

#### 🌃 SPGSPC1 - RANDOMIZED PCS, SSGAC 1ST THRU 5TH

Туре	Numeric (Double)
Description	Randomized PC, include PC1-PC5 in analyses that use any PC from PC1 to PC5

#### SPGSPC2 - RANDOMIZED PCS, SSGAC 1ST THRU 5TH

Туре	Numeric (Double)
Description	Randomized PC, include PC1-PC5 in analyses that use any PC from PC1 to PC5

SPGSPC3 - RANDOMIZED PCS, SSGAC 1ST THRU 5TH	
Туре	Numeric (Double)
Description	Randomized PC, include PC1-PC5 in analyses that use any PC from PC1 to PC5

# SPGSPC4 - RANDOMIZED PCS, SSGAC 1ST THRU 5TH Type Numeric (Double) Description Randomized PC, include PC1-PC5 in analyses that use any PC from PC1 to PC5

🍄 SPGSPC5 - RANDOMIZED PCS, SSGAC 1ST THRU 5TH			
Туре	Numeric (Double)		
Description	Randomized PC, include PC1-PC5 in analyses that use any PC from PC1 to PC5		
🌯 SPGSPC6 - RAND	🍄 SPGSPC6 - RANDOMIZED PCS, SSGAC 6TH THRU 10TH		
Туре	Numeric (Double)		
Description	Randomized PC, include PC6-PC10 in analyses that use any PC from PC6 to		
	PC10		
🍄 SPGSPC7 - RAND	SPGSPC7 - RANDOMIZED PCS, SSGAC 6TH THRU 10TH		
Туре	Numeric (Double)		
Description	Randomized PC, include PC6-PC10 in analyses that use any PC from PC6 to PC10		
🎋 SPGSPC8 - RANDOMIZED PCS, SSGAC 6TH THRU 10TH			
Туре	Numeric (Double)		
Description	Randomized PC include PC6-PC10 in analyses that use any PC from PC6 to		

Description Randomized PC, include PC6-PC10 in analyses that use any PC from PC6 to PC10

TO SPGSPC9 - RANDOMIZED PCS, SSGAC 61H THRU 101H	
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Туре	Numeric (Double)
Description	Randomized PC, include PC6-PC10 in analyses that use any PC from PC6 to
	PC10

#### 🐝 SPGSPC10 - RANDOMIZED PCS, SSGAC 6TH THRU 10TH

Туре	Numeric (Double)
Description	Randomized PC, include PC6-PC10 in analyses that use any PC from PC6 to
	PC10

## Logical Products

🚈 Wave IV Polygenic Scores – SSGAC

#### Data Layouts

Wave IV Polygenic Scores – SSGAC

Wave IV Polygenic Scores – SSGAC

SPGSEA3G - EDUCATIONAL ATTAINMENT, SSGAC GWAS

Туре	Numeric (Double)
Description	Polygenic score for educational attainment, obtained using standard GWAS
	results

SPGSEA3M - EDUCATIONAL ATTAINMENT, SSGAC MTAG	
Туре	Numeric (Double)
Description	Polygenic score for educational attainment, obtained using multivariate analysis of educational attainment, cognitive performance, self-reported math ability and highest-level math class taken

SPGSCPG - COGNITIVE PERFORMANCE, SSGAC GWAS	
Туре	Numeric (Double)
Description	Polygenic score for cognitive performance, obtained using standard GWAS results

SPGSCPM - COGNITIVE PERFORMANCE, SSGAC MTAG	
Туре	Numeric (Double)
Description	Polygenic score for cognitive performance, obtained using multivariate analysis of educational attainment, cognitive performance, self-reported math ability and highest-level math class taken

SPGSHMM - HIGHEST-LEVEL MATH TAKEN, SSGAC MTAG	
Туре	Numeric (Double)
Description	Polygenic score for highest-level math class taken, obtained using multivariate analysis of educational attainment, cognitive performance, self-reported math ability and highest-level math class taken

SPGSMAM - SELF-REPORTED MATH ABILITY, SSGAC MTAG	
Туре	Numeric (Double)
Description	Polygenic score for self-reported math ability, obtained using multivariate analysis of educational attainment, cognitive performance, self-reported math ability and highest-level math class taken

### 😤 SPGSDEPG - DEPRESSION, SSGAC, GWAS

Туре	Numeric (Double)
Description	Polygenic score for depression, obtained using standard GWAS results

#### 🜃 SPGSDEPM - DEPRESSION, SSGAC MTAG

Туре	Numeric (Double)

Description	Polygenic score for depression, obtained using multivariate analysis of
	depression, neuroticism and subjective well-being

Туре	Numeric (Double)
Description	Polygenic score for neuroticism, obtained using standard GWAS results

Туре	Numeric (Double)
Description	Polygenic score for neuroticism, obtained using multivariate analysis of
	depression, neuroticism and subjective well-being

SPGSSWBG - SUBJECTIVE WELL-BEING, SSGAC GWAS	
Туре	Numeric (Double)
Description	Polygenic score for subjective well-being, obtained using standard GWAS results

SPGSSWBM - SUBJECTIVE WELL-BEING, SSGAC MTAG	
Туре	Numeric (Double)
Description	Polygenic score for subjective well-being, obtained using multivariate analysis of depression, neuroticism and subjective well-being

SPGSPC1 - RANDOMIZED	PCS, SSGAC 1ST THRU 5TH
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Туре	Numeric (Double)
Description	Randomized PC, include PC1-PC5 in analyses that use any PC from PC1 to PC5

#### SPGSPC2 - RANDOMIZED PCS, SSGAC 1ST THRU 5TH

Туре	Numeric (Double)
Description	Randomized PC, include PC1-PC5 in analyses that use any PC from PC1 to PC5

SPGSPC3 - RANDOMIZED PCS, SSGAC 1ST THRU 5TH	
Туре	Numeric (Double)
Description	Randomized PC, include PC1-PC5 in analyses that use any PC from PC1 to PC5

SPGSPC4 - RANDOMIZED PCS, SSGAC 1ST THRU 5TH	
Туре	Numeric (Double)
Description	Randomized PC, include PC1-PC5 in analyses that use any PC from PC1 to PC5

SPGSPC5 - RANDOMIZED PCS, SSGAC 1ST THRU 5TH

Туре	Numeric (Double)
Description	Randomized PC, include PC1-PC5 in analyses that use any PC from PC1 to PC5
SPGSPC6 - RANDOMIZED PCS, SSGAC 6TH THRU 10TH	
Туре	Numeric (Double)
Description	Randomized PC, include PC6-PC10 in analyses that use any PC from PC6 to PC10

SPGSPC7 - RANDOMIZED PCS, S	SSGAC 6TH THRU 10TH
Туре	Numeric (Double)
Description	Randomized PC, include PC6-PC10 in analyses that use any PC from PC6 to PC10

<sup>⋘</sup> SPGSPC8 − RANDOMIZED PCS, S	SGAC 6TH THRU 10TH
Туре	Numeric (Double)
Description	Randomized PC, include PC6-PC10 in analyses that use any PC from PC6 to PC10

SPGSPC9 - RANDOMIZED PCS, S	SGAC 6TH THRU 10TH
Туре	Numeric (Double)
Description	Randomized PC, include PC6-PC10 in analyses that use any PC from PC6 to PC10

🛠 SPGSPC10 - RANDON	AIZED PCS, SSGAC 6TH THRU 10TH
Туре	Numeric (Double)
Description	Randomized PC, include PC6-PC10 in analyses that use any PC from PC6 to PC10

# Physical Instances

🐻 Wave IV Polygenic Sco	ores – SSGAC
Title	Wave IV Polygenic Scores – SSGAC
File Name	ssgacpgs.sas7bdat
Case Quantity	5690
Variable Count	22
🍄 SPGSEA3G - EDUCATIONA	L ATTAINMENT, SSGAC GWAS
Туре	Numeric (Double)

Description		Polygenic score results	for educational a	ttainment, obtair	ned using standard	GWAS
Valid	Invalid	Minimum	Maximum	Mean	StdDev	
5690	0	-0.30494	0.74812	0.2028727	0.1487078	
🎋 SPGSEA3N	1 - EDUCATION	AL ATTAINMEN	T, SSGAC MTA	G		
Туре		Numeric (Doub	le)			
Description		analysis of educ		nt, cognitive perfo	ned using multivari prmance, self-repo	
Valid	Invalid	Minimum	Maximum	Mean	StdDev	
5690	0	-0.26512	0.92896	0.2965658	0.1635296	
SPGSCPG -	COGNITIVE PE	RFORMANCE, S	SGAC GWAS			
Туре		Numeric (Doub	le)			
Description		Polygenic score results	for cognitive perf	ormance, obtain	ed using standard (	GWAS
Valid	Invalid	Minimum	Maximum	Mean	StdDev	
5690	0	-0.38431	0.78524	0.2199662	0.1609762	
餐 SPGSCPM	- COGNITIVE PE	RFORMANCE,	SSGAC MTAG			
Туре		Numeric (Doub	le)			
Description		analysis of educ		nt, cognitive perfo	ed using multivaria prmance, self-repo	
Valid	Invalid	Minimum	Maximum	Mean	StdDev	
5690	0	-0.43285	1.2357	0.4093559	0.2306889	
% SPGSHMN	1 - HIGHEST-LE\	/EL MATH TAKE	N, SSGAC MTA	G		
Туре		Numeric (Doub	le)			
Description		multivariate and	for highest-level alysis of educatior ability and highes	nal attainment, co	ognitive performan	ce, self-
Valid	Invalid	Minimum	Maximum	Mean	StdDev	
5690	0	-0.66943	1.20904	0.2839547	0.2443992	
餐 SPGSMAN	I - SELF-REPORT	ED MATH ABIL	ITY, SSGAC MT	AG		
Туре		Numeric (Doub	(ما			

Description		analysis of ed	-	nent, cognitive per	tained using multivar formance, self-report	
Valid	Invalid	Minimum	Maximum	Mean	StdDev	
5690	0	-0.57515	0.79868	0.1180859	0.1785788	
<sup>4</sup> SPGSDE	EPG - DEPRESSI	ON, SSGAC, GWA	٩S			
Туре		Numeric (Dou	ıble)			
Description		Polygenic sco	re for depression	, obtained using st	andard GWAS results	
Valid	Invalid	Minimum	Maximum	Mean	StdDev	
5690	0	-0.25682	0.25604	-0.004030	0.0699085	
😵 SPGSDE	EPM - DEPRESSI	ON, SSGAC MTA	G			
Туре		Numeric (Dou	ıble)			
Description			-	, obtained using m ubjective well-bein	ultivariate analysis of g	:
Valid	Invalid	Minimum	Maximum	Mean	StdDev	
5690	0	-0.27669	0.31887	0.0186877	0.0817165	
<sup>4</sup> SPGSNE	EUG - NEUROTI	cism, ssgac gw	/AS			
Туре		Numeric (Dou	ıble)			
Description		Polygenic sco	re for neuroticisn	n, obtained using s	tandard GWAS result	s
Valid	Invalid	Minimum	Maximum	Mean	StdDev	
5690	0	-0.14269	0.34431	0.0848812	0.0693552	
😵 SPGSNE	EUM - NEUROTI	CISM, SSGAC M <sup>-</sup>	ΓAG			
Туре		Numeric (Dou	ıble)			
Description				n, obtained using n ubjective well-bein	nultivariate analysis o g	of
Valid	Invalid	Minimum	Maximum	Mean	StdDev	
5690	0	-0.28326	0.47736	0.0790737	0.1014335	
😵 SPGSSV	VBG - SUBJECTI	VE WELL-BEING,	SSGAC GWAS			
Туре		Numeric (Dou	ıble)			
Description		Polygenic sco results	re for subjective	well-being, obtaine	ed using standard GW	AS
		N dia ina waa	N An strengthe	Maan	StdDov	
Valid	Invalid	Minimum	Maximum	Mean	StdDev	

<sup>4</sup> SPGSSW	/BM - SUBJECT	IVE WELL-BEING	, SSGAC MTAG	5		
Туре		Numeric (Dou	ıble)			
			ygenic score for subjective well-being, obtained using multivariate analysi depression, neuroticism and subjective well-being			
Valid	Invalid	Minimum	Maximum	Mean	StdDev	
5690	0	-0.27483	0.2409	-0.020514	0.0689737	
🌯 SPGSPC	1 - RANDOMIZ	ED PCS, SSGAC 1	ST THRU 5TH			
Туре		Numeric (Dou	ıble)			
Description		Randomized	PC, include PC1-P	C5 in analyses th	at use any PC from PC1 t	to PC
Valid	Invalid	Minimum	Maximum	Mean	StdDev	
5690	0	-0.54918	0.08156	4.39E-8	0.0132580	
😵 SPGSPC	2 - RANDOMIZ	ED PCS, SSGAC 1	ST THRU 5TH			
Туре		Numeric (Dou	ıble)			
Description		Randomized	PC, include PC1-P	C5 in analyses th	at use any PC from PC1 t	to PC
Valid	Invalid	Minimum	Maximum	Mean	StdDev	
5690	0	-0.53131	0.24787	1.58E-8	0.0132580	
<sup>4</sup> SPGSPC	3 - RANDOMIZ	ED PCS, SSGAC 1	ST THRU 5TH			
Туре		Numeric (Dou	ıble)			
Description		Randomized	PC, include PC1-P	C5 in analyses th	at use any PC from PC1 t	to PC
Valid	Invalid	Minimum	Maximum	Mean	StdDev	
5690	0	-0.02088	0.10643	2.64E-8	0.0132581	
<sup>4</sup> SPGSPC	4 - RANDOMIZ	ED PCS, SSGAC 1	ST THRU 5TH			
Туре		Numeric (Dou	ıble)			
Description		Randomized	PC, include PC1-P	C5 in analyses th	at use any PC from PC1 t	to PC
Valid	Invalid	Minimum	Maximum	Mean	StdDev	
5690	0	-0.51954	0.18045	2.99E-8	0.0132581	
🌯 SPGSPC	5 - RANDOMIZ	ED PCS, SSGAC 1	ST THRU 5TH			
Туре		Numeric (Dou	ıble)			
Description		Randomized	PC, include PC1-P	C5 in analyses th	at use any PC from PC1 t	to PC
Valid	Invalid	Minimum	Maximum	Mean	StdDev	
			0.4292	3.51E-9	0.0132580	

Туре		Numeric (Doub	ole)			
Description		Randomized P PC10	Randomized PC, include PC6-PC10 in analyses that use any PC from PC6 to PC10			
Valid	Invalid	Minimum	Maximum	Mean	StdDev	
5690	0	-0.56317	0.12763	-3.69E-8	0.0132580	
🌯 SPGSPC7	- RANDOMIZE	ED PCS, SSGAC 6T	H THRU 10TH			
Туре		Numeric (Dout	ole)			
Description		Randomized P PC10	C, include PC6-PC	10 in analyses t	hat use any PC from PC	C6 to
Valid	Invalid	Minimum	Maximum	Mean	StdDev	
5690	0	-0.25331	0.49432	-4.92E-8	0.0132582	
🌯 SPGSPC8	- RANDOMIZE	ED PCS, SSGAC 61	H THRU 10TH			
Туре		Numeric (Dout	ole)			
<b>_</b>						
Description		PC10	L, Include PC6-PC	10 in analyses t	hat use any PC from PC	_6 to
Valid	Invalid		Maximum	10 in analyses t	hat use any PC from PC	.6 to
	Invalid 0	PC10				_6 t0
Valid 5690	0	PC10 Minimum	Maximum 0.08937	Mean	StdDev	_6 to
Valid 5690	0	PC10 Minimum -0.44707	Maximum 0.08937 TH THRU 10TH	Mean	StdDev	_6 to
Valid 5690	0	PC10 Minimum -0.44707 ED PCS, SSGAC 67 Numeric (Doub	Maximum 0.08937 TH THRU 10TH Dle)	Mean -5.27E-8	StdDev	
Valid 5690 SPGSPC9 Type	0	PC10 Minimum -0.44707 ED PCS, SSGAC 6T Numeric (Doub Randomized P	Maximum 0.08937 TH THRU 10TH Dle)	Mean -5.27E-8	StdDev 0.0132581	
Valid 5690 SPGSPC9 Type Description	0 - Randomize	PC10 Minimum -0.44707 ED PCS, SSGAC 67 Numeric (Dout Randomized Pu PC10	Maximum 0.08937 TH THRU 10TH Dle) C, include PC6-PC	Mean -5.27E-8 10 in analyses t	StdDev 0.0132581 hat use any PC from PC	
Valid 5690 SPGSPC9 Type Description Valid 5690	0 RANDOMIZE	PC10 Minimum -0.44707 ED PCS, SSGAC 6T Numeric (Doub Randomized Pu PC10 Minimum	Maximum 0.08937 TH THRU 10TH DIe) C, include PC6-PC Maximum 0.54489	Mean -5.27E-8 10 in analyses t Mean 4.39E-8	hat use any PC from PC	
Valid 5690 SPGSPC9 Type Description Valid 5690	0 RANDOMIZE	PC10 Minimum -0.44707 ED FCS, SSGAC 6T Numeric (Doub Randomized Pu PC10 Minimum -0.08975	Maximum 0.08937 THTHRU 10TH DIe) C, include PC6-PC Maximum 0.54489 THTHRU 10TH	Mean -5.27E-8 10 in analyses t Mean 4.39E-8	hat use any PC from PC	
Valid 5690 SPGSPC9 Type Description Valid 5690	0 RANDOMIZE	PC10 Minimum -0.44707 DVCS, SSGAC 67 Numeric (Dout Randomized Pu PC10 Minimum -0.08975 ZED PCS, SSGAC 6 Numeric (Dout	Maximum 0.08937 H THRU 10TH De) C, include PC6-PC Maximum 0.54489 GTH THRU 10TH De)	Mean -5.27E-8 :10 in analyses t Mean 4.39E-8	hat use any PC from PC	C6 to
Valid 5690 SPGSPC9 Type Description Valid 5690 SPGSPC10 Type	0 RANDOMIZE	PC10 Minimum -0.44707 ED PCS, SSGAC 67 Randomized P4 PC10 Minimum -0.08975 ZED PCS, SSGAC 6 Numeric (Doub Randomized P4	Maximum 0.08937 H THRU 10TH De) C, include PC6-PC Maximum 0.54489 GTH THRU 10TH De)	Mean -5.27E-8 :10 in analyses t Mean 4.39E-8	StdDev         0.0132581         hat use any PC from PC         StdDev         0.0132581	C6 to