Research Module in Management and Applied Economics

Fall/Winter Term 2020

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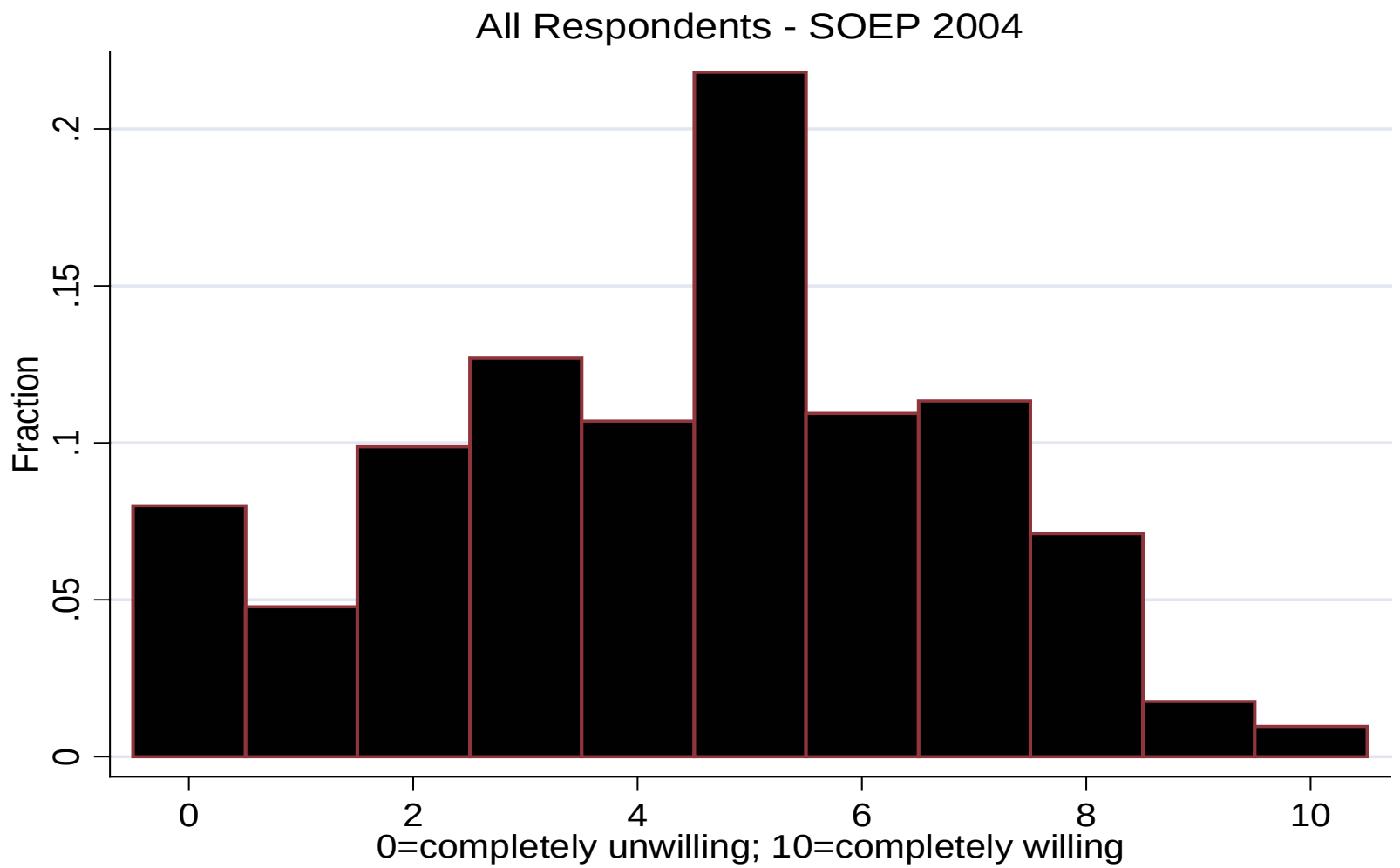
Economic Preferences: Heterogeneity and Determinants

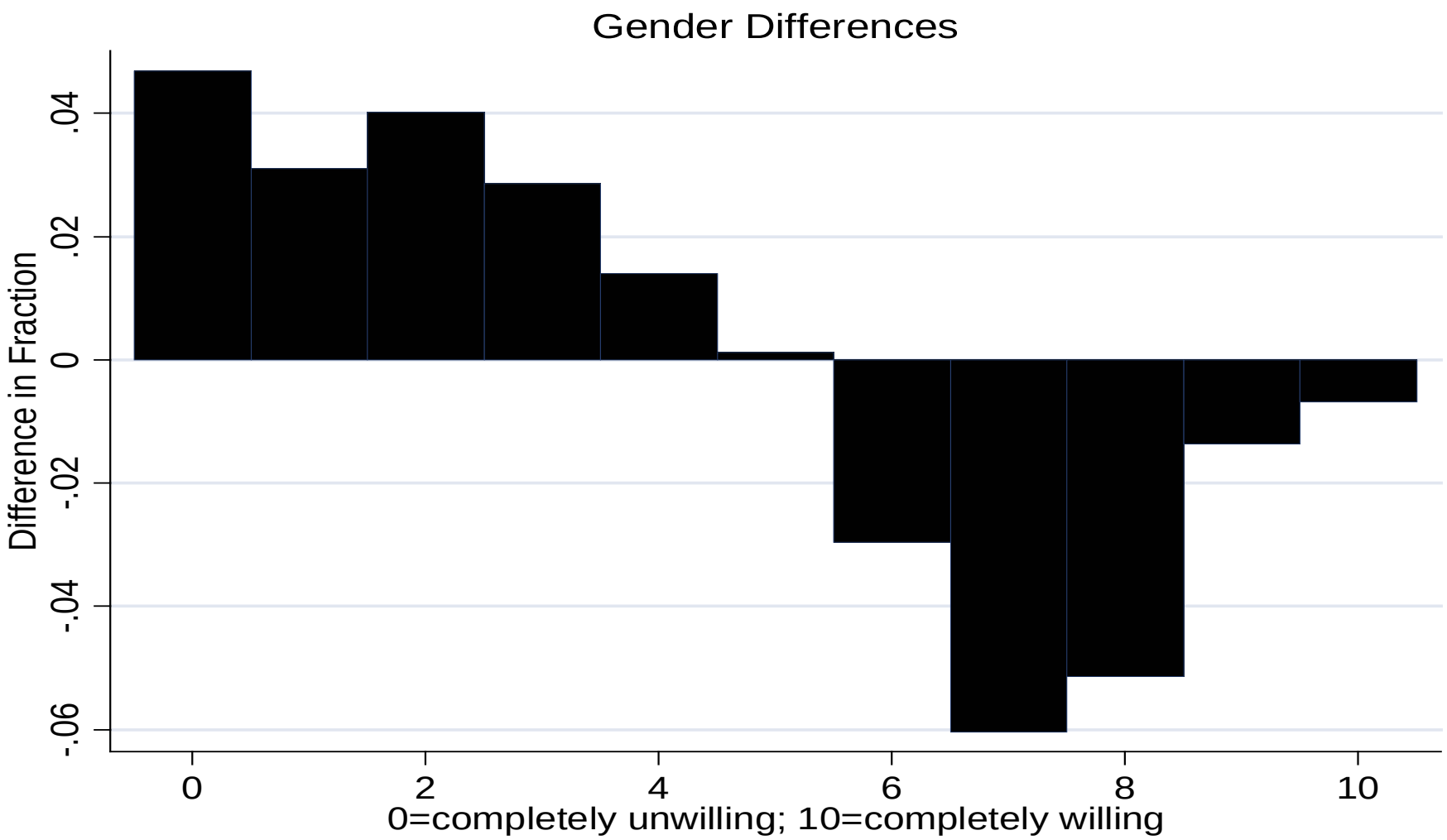
Heterogeneity

Distribution of Willingness to Take Risks

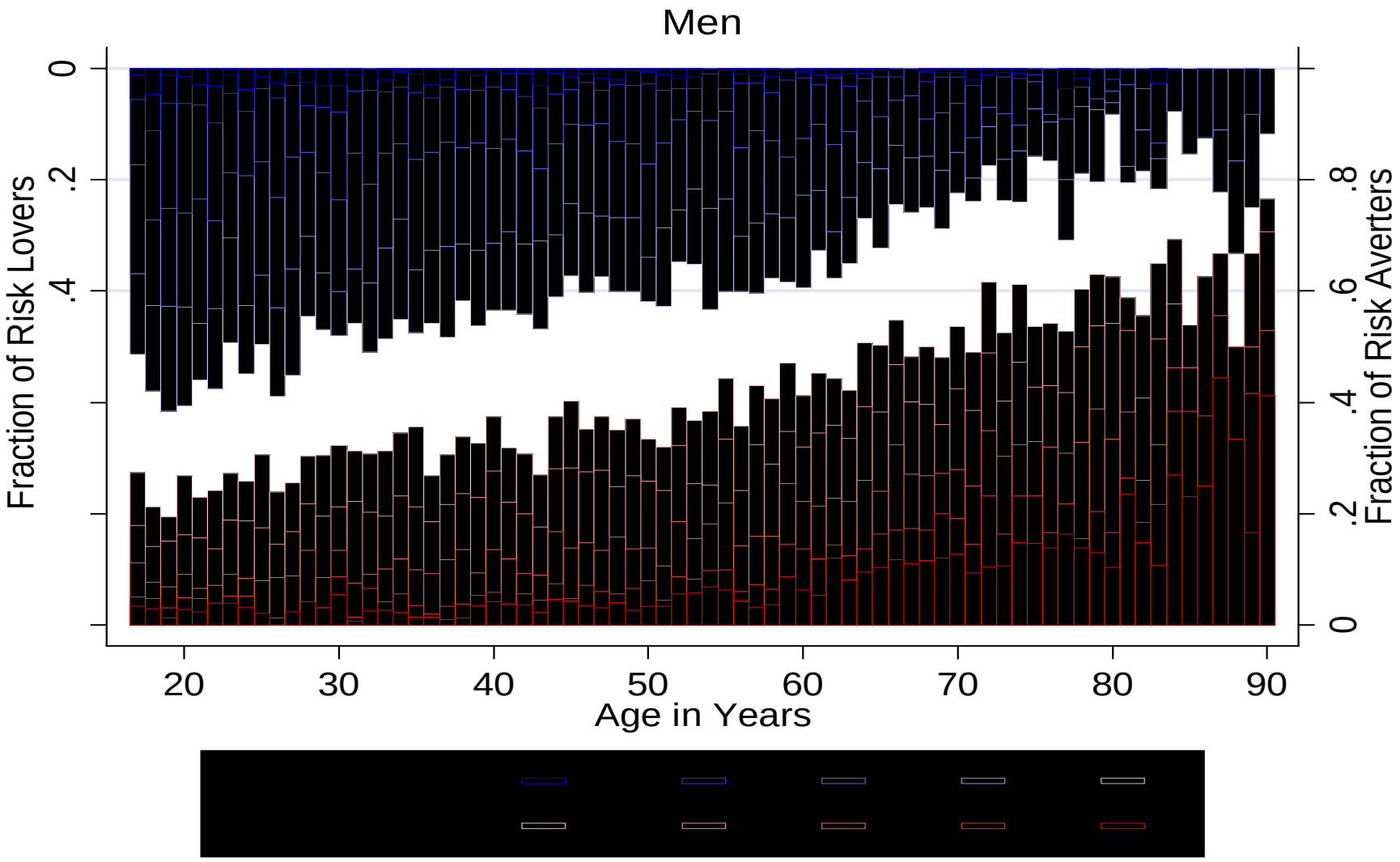


Determinants/Correlates of Economic Preferences

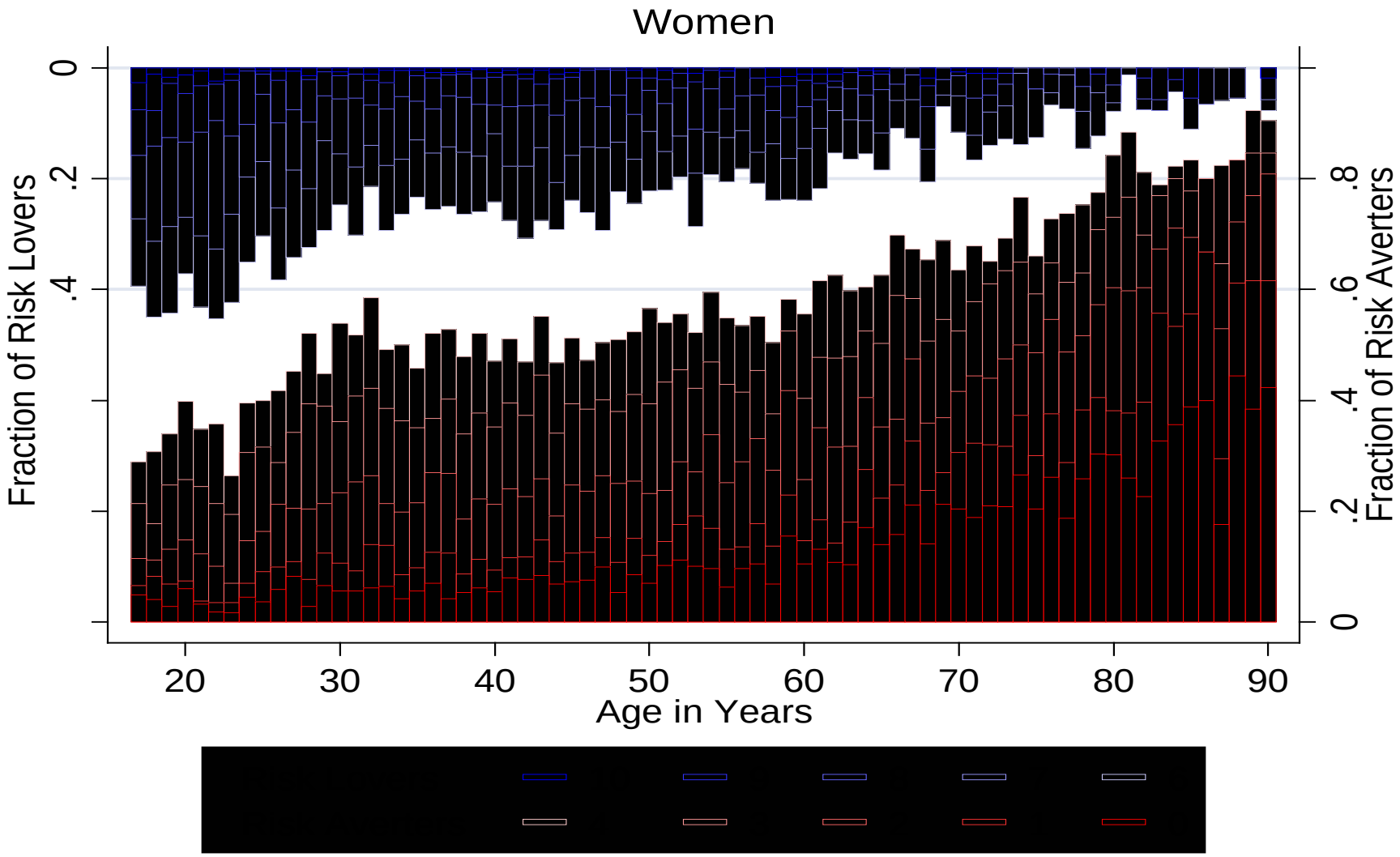
Gender and Risk Attitudes



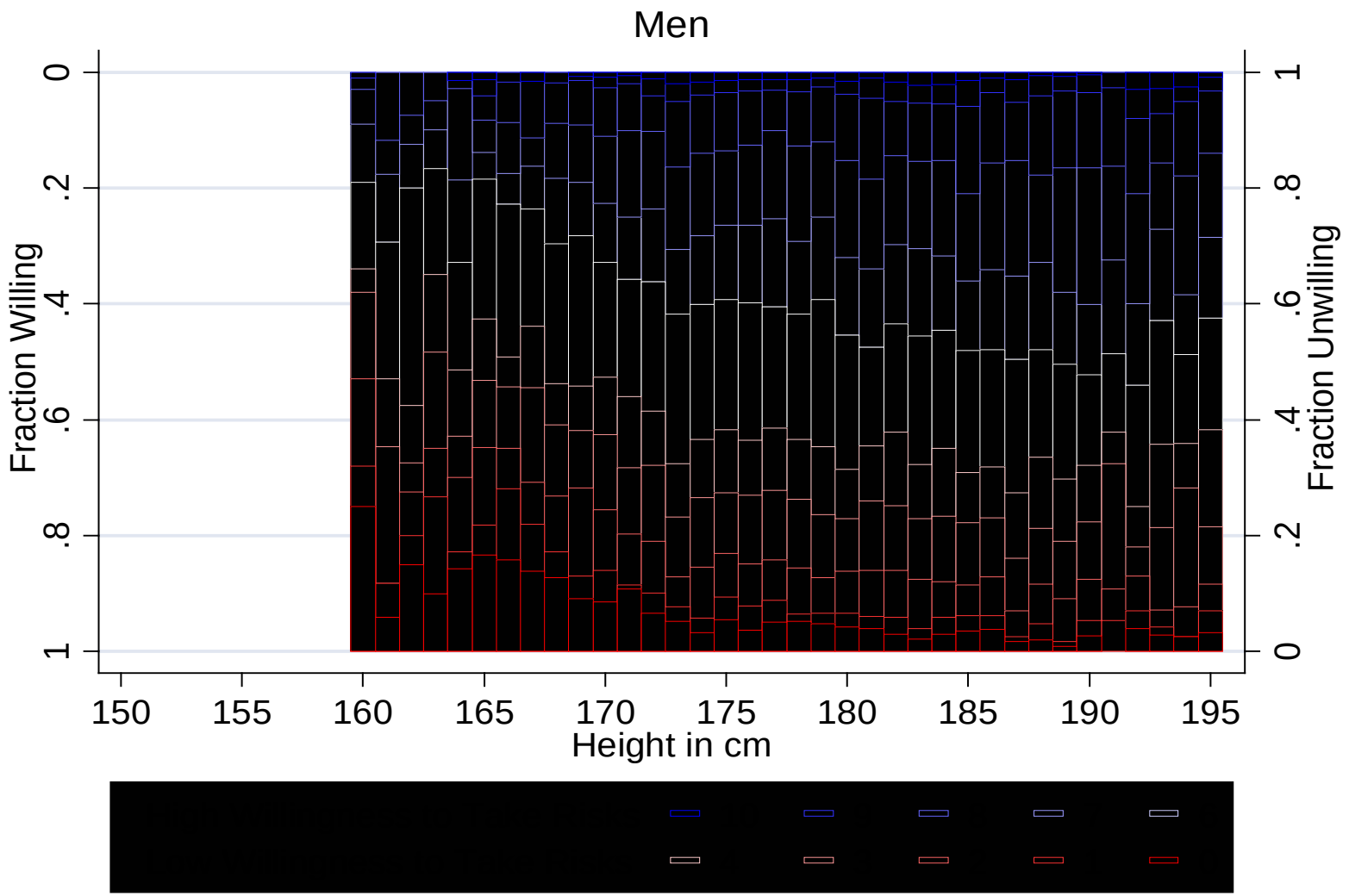
Age and Risk Attitudes



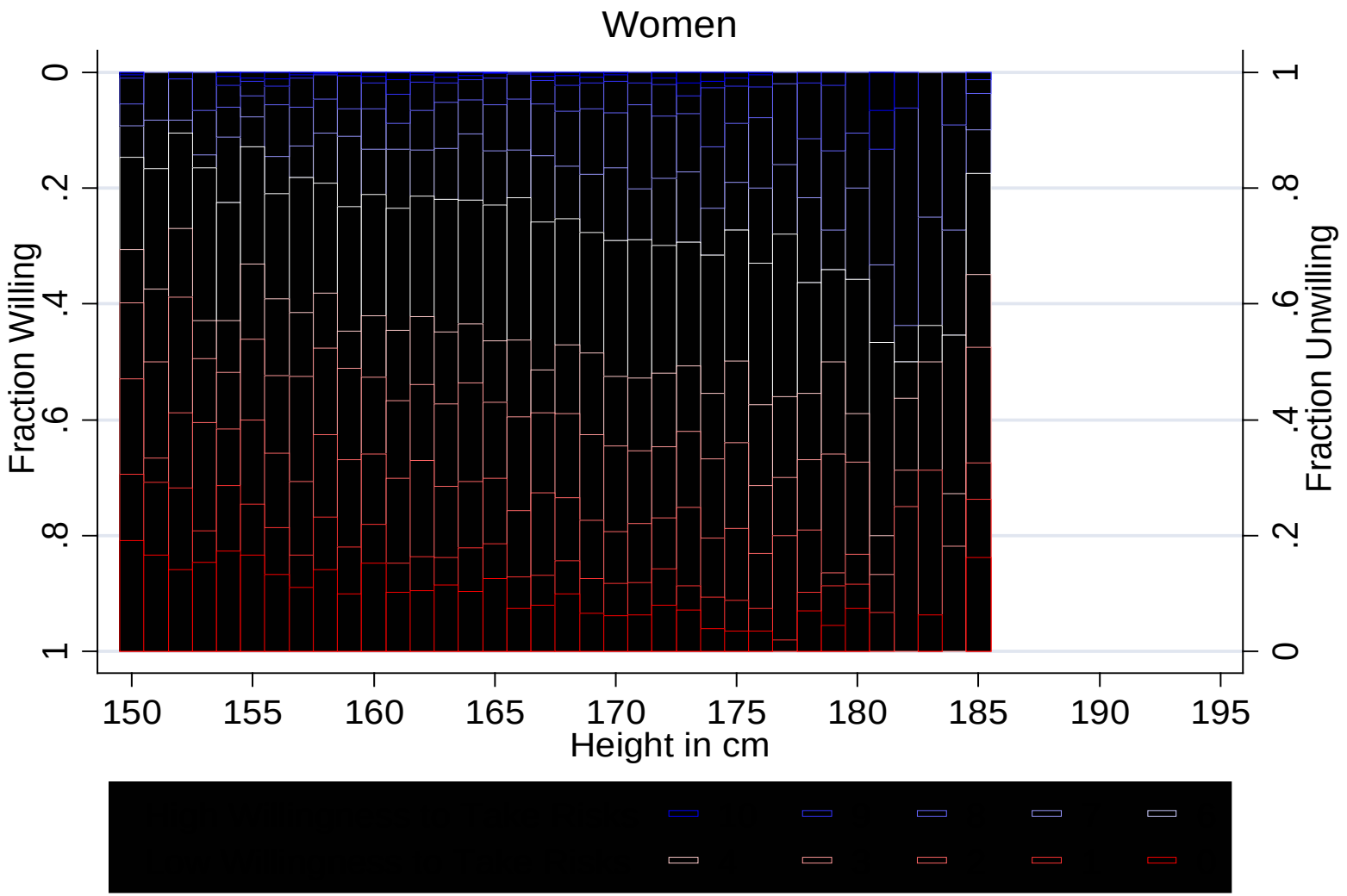
Age and Risk Attitudes



Height and Risk Attitudes



Height and Risk Attitudes

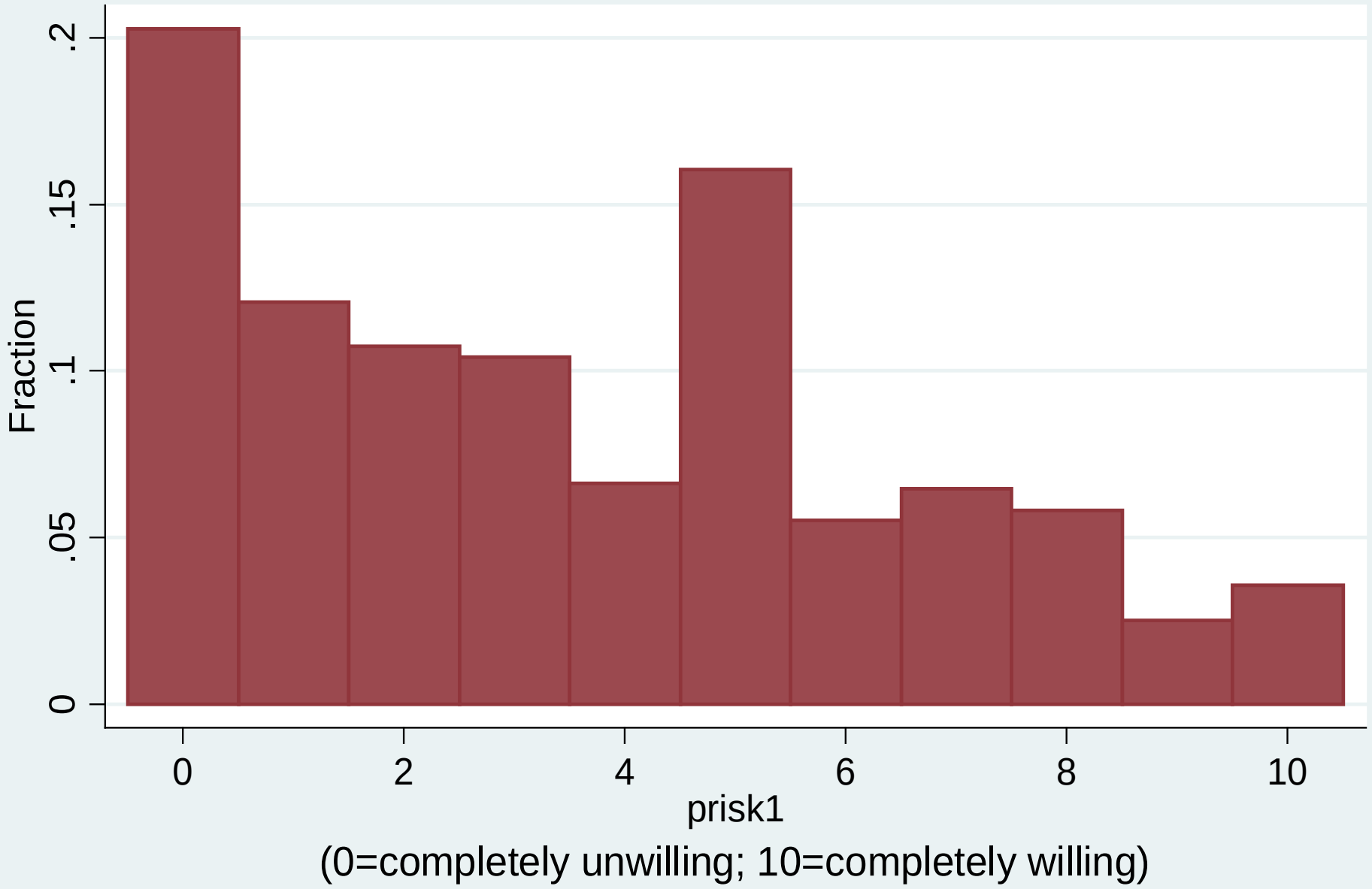


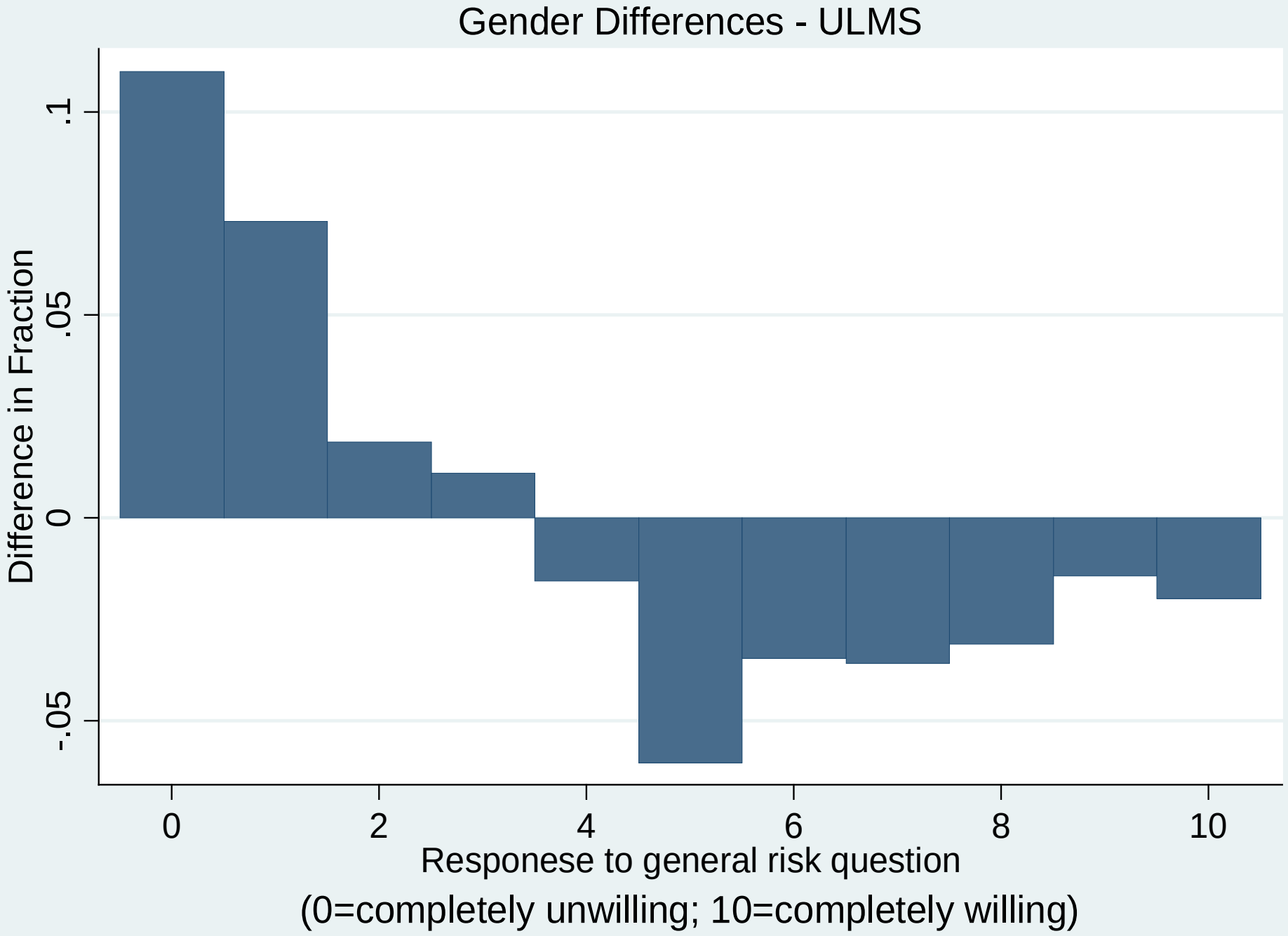
Determinants of Risk Attitudes

Primary Determinants of General Risk Attitudes
Dependent variable: willingness to take risks in general

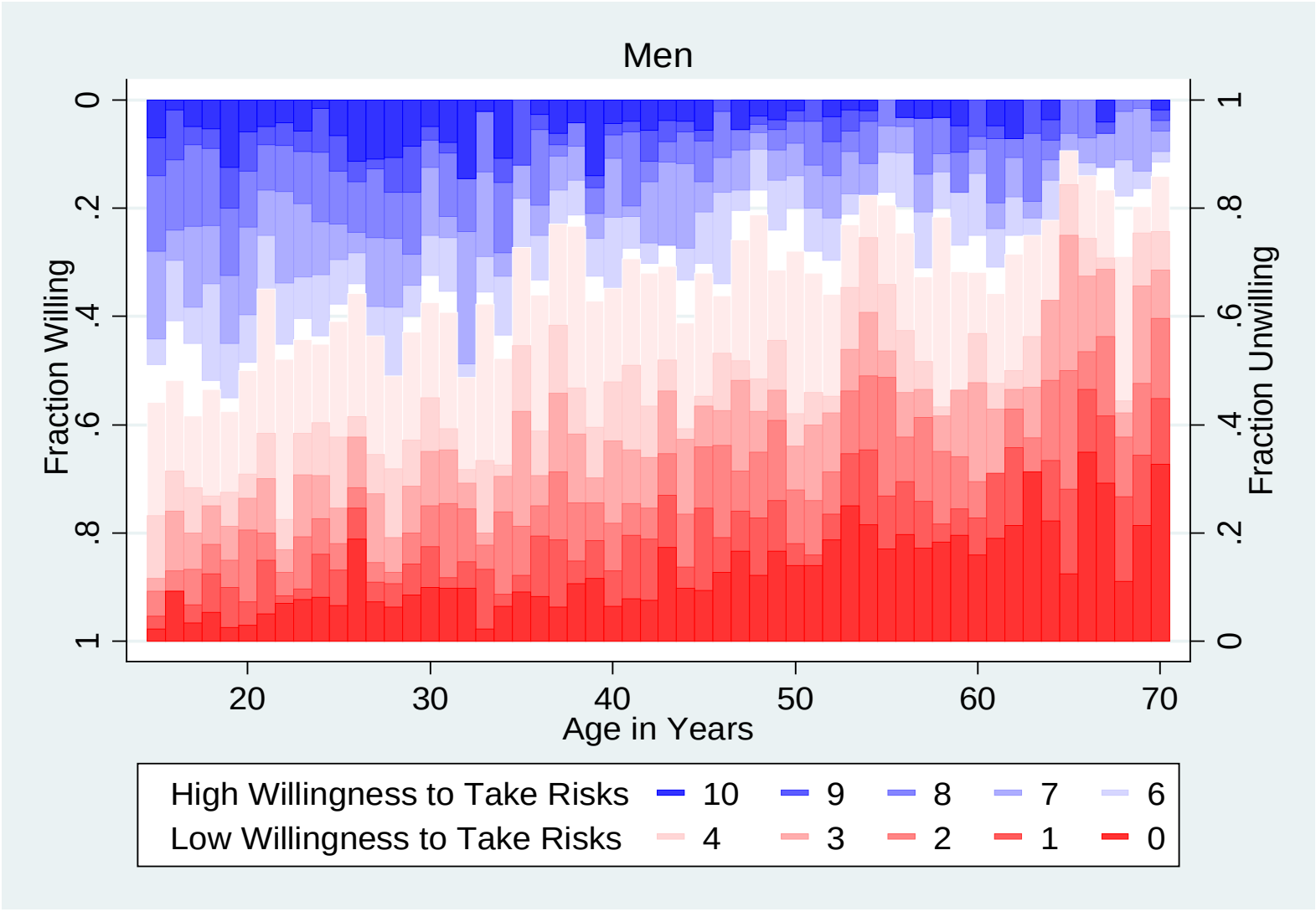
	(1)	(2)	(3)	(4)	(5)	(6)
Female	-0.591***	-0.613***	-0.614***	-0.618***	-0.605***	-0.577***
	[0.043]	[0.046]	[0.049]	[0.046]	[0.047]	[0.056]
Age (in years)	-0.035***	-0.034***	-0.034***	-0.028***	-0.027***	-0.018***
	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]	[0.003]
Height (in cm)	0.030***	0.029***	0.027***	0.026***	0.027***	0.015***
	[0.003]	[0.003]	[0.003]	[0.003]	[0.003]	[0.003]
Abitur mother		0.241***	0.244***	0.247***	0.281***	0.172**
		[0.071]	[0.078]	[0.071]	[0.074]	[0.085]
Abitur father		0.286***	0.256***	0.234***	0.240***	0.029
		[0.054]	[0.060]	[0.054]	[0.056]	[0.064]
Log(household wealth in 2002)	No	No	Yes	No	No	Yes
Log(household income 2003)	No	No	No	Yes	No	No
Log(household income 2004)	No	No	No	No	Yes	Yes
Other controls	No	No	No	No	No	Yes
log sigma	0.85***	0.84***	0.84***	0.84***	0.83***	0.81***
	[0.005]	[0.006]	[0.006]	[0.006]	[0.006]	[0.007]
Log pseudo-likelihood	-47,456	-42,323	-36,829	-42,24	-39,052	-31,606
Observations	21785	19463	16948	19463	17998	14766

General Risk Attitudes in Ukraine

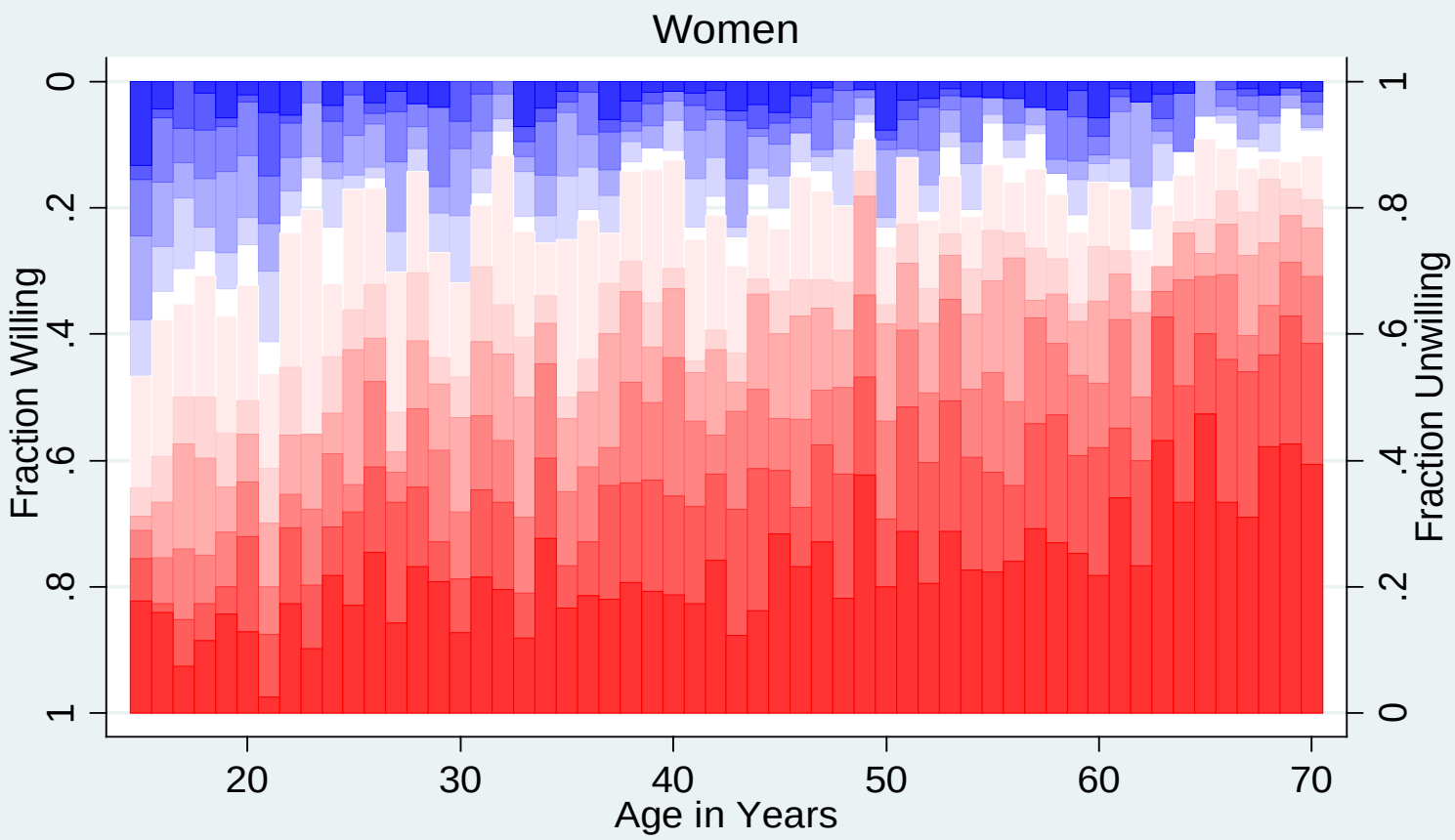



Gender Differences - ULMS
Difference in Fraction
.1
.05
0
-.05
0
2
4
6
8
10
Responese to general risk question
(0=completely unwilling; 10=completely willing)

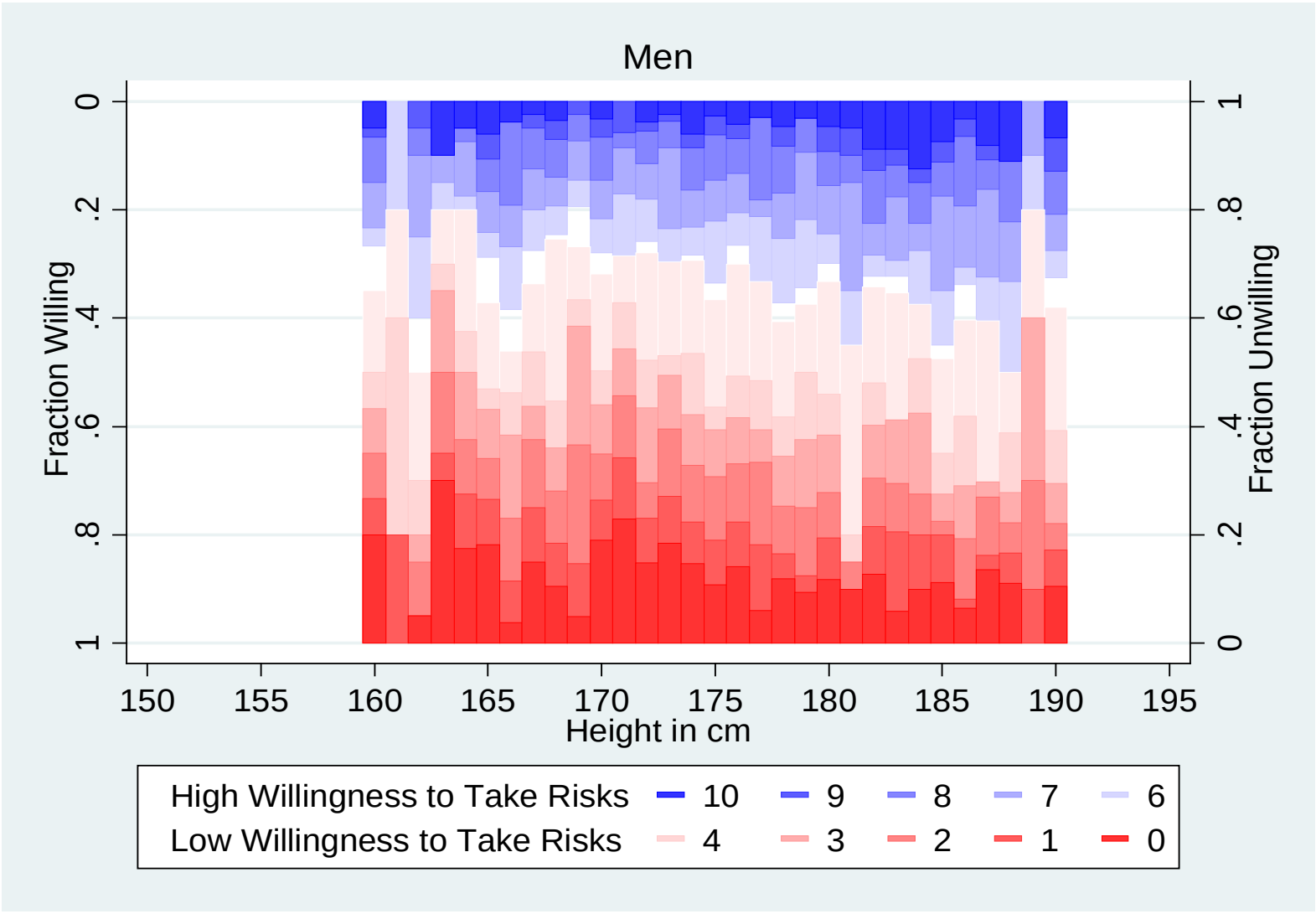
Risk Attitudes and Age in Ukraine (ULMS Data)



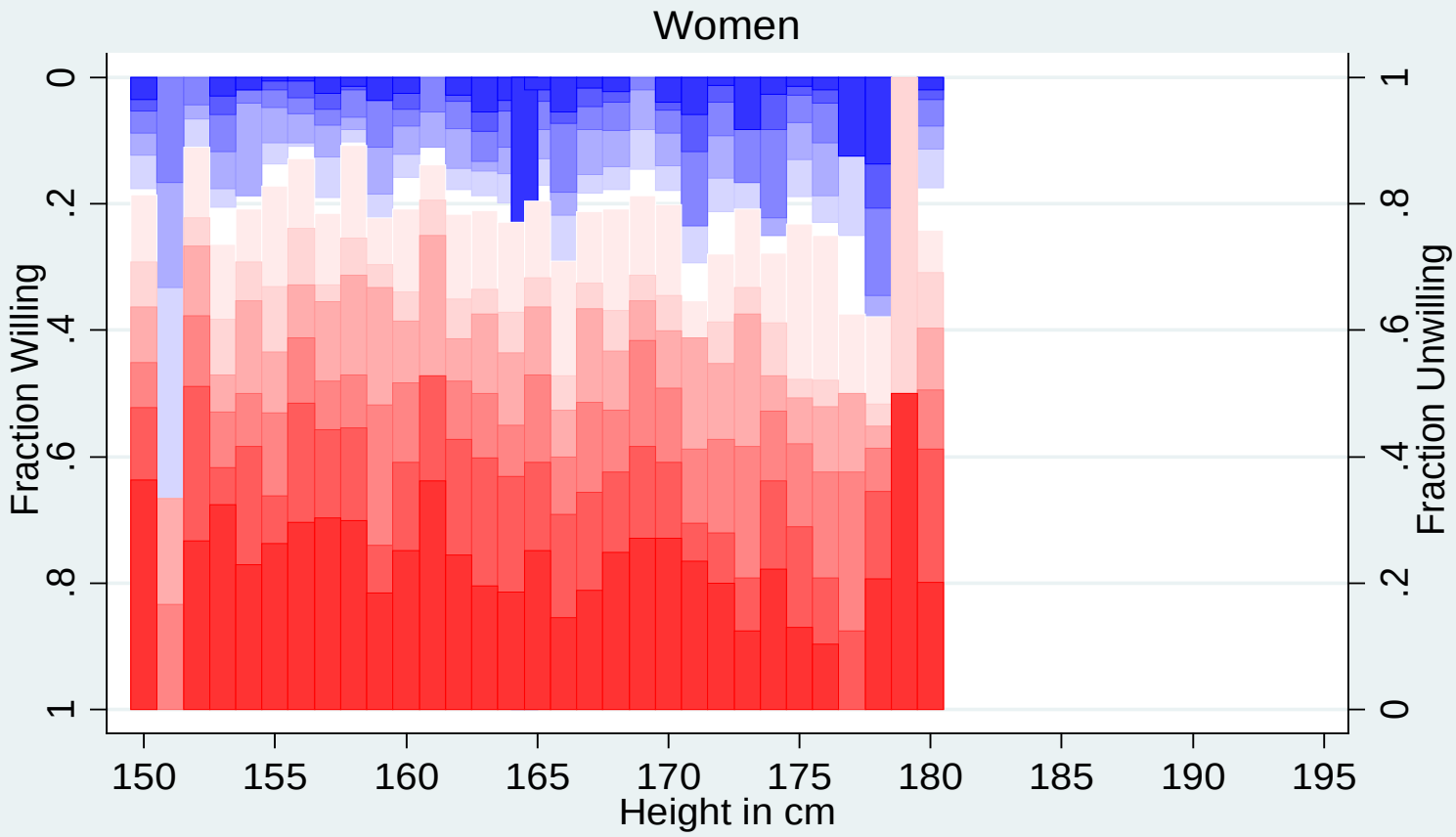
Risk Attitudes and Age in Ukraine (ULMS Data)



Height and Risk Attitudes in Ukraine



Height and Risk Attitudes in Ukraine

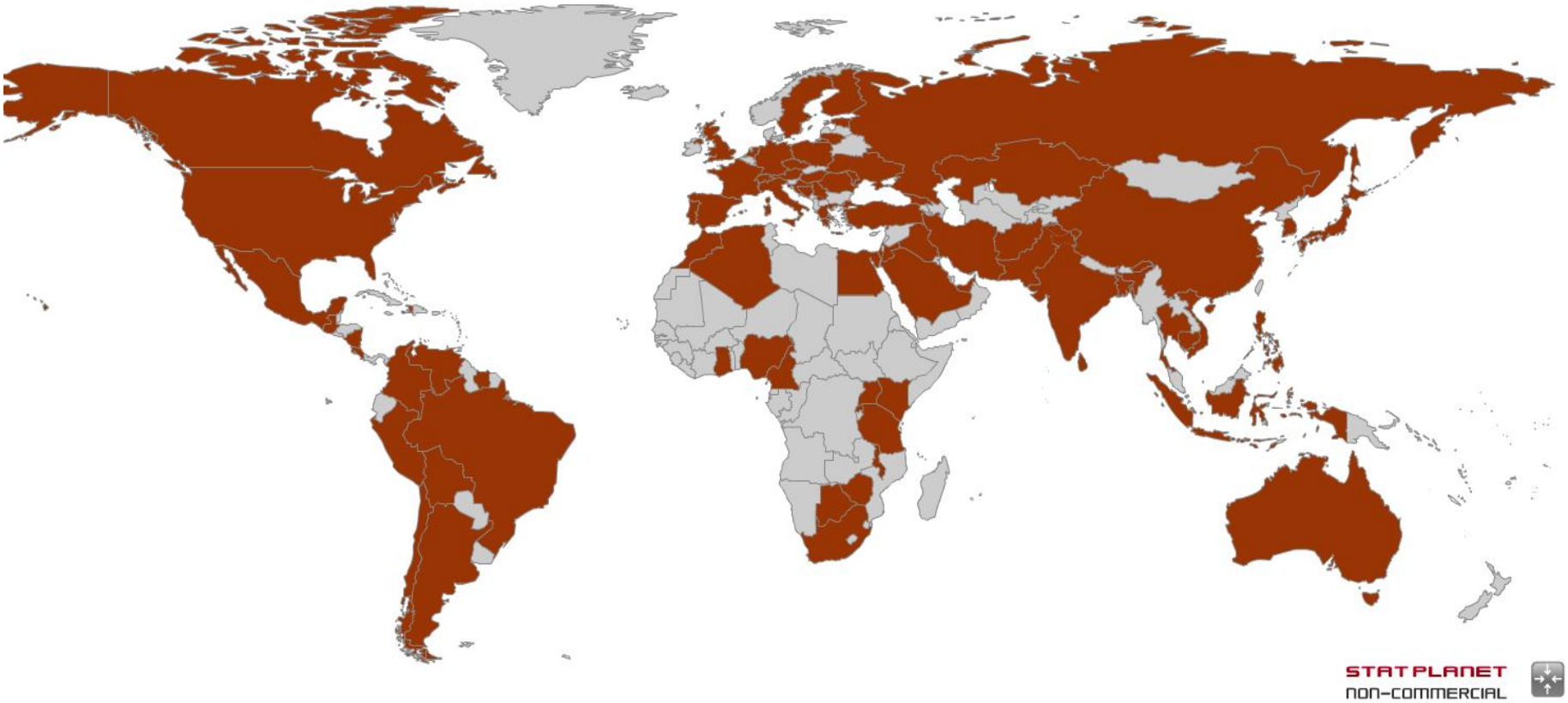


Heterogeneity in Preferences across Countries

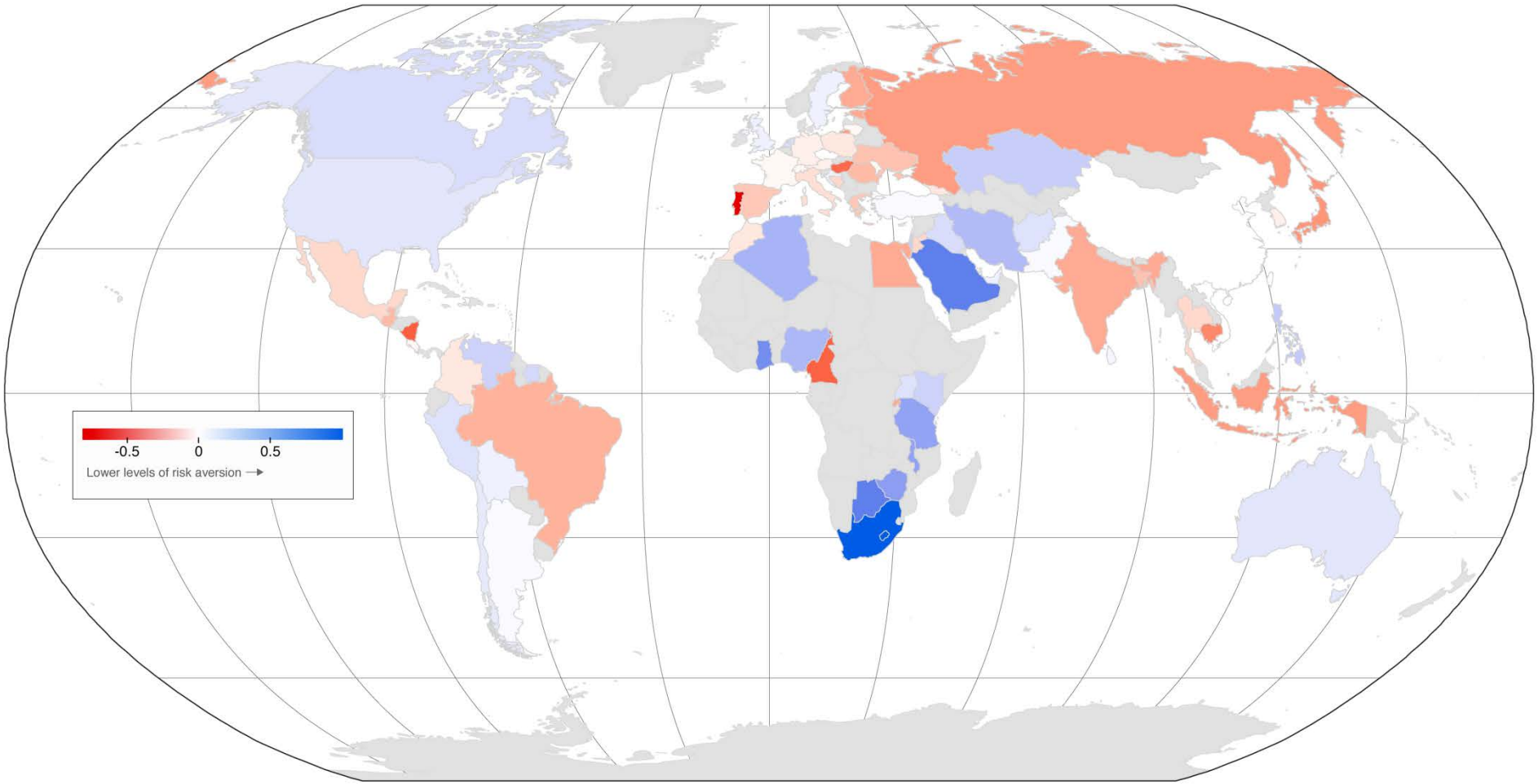
Global Preferences Survey

- Data collected within framework of the 2012 Gallup World Poll
- Representative samples in 76 countries, N=80,000
- Median sample size: 1000 participants per country
- Countries represent 90% of world population / global income
- Global coverage: all continents, various cultures, different levels of development
  - 15 countries from Americas
  - 25 countries from Europe
  - 22 countries from Asia and Pacific
  - 14 countries from Africa (11 Sub-Saharan)

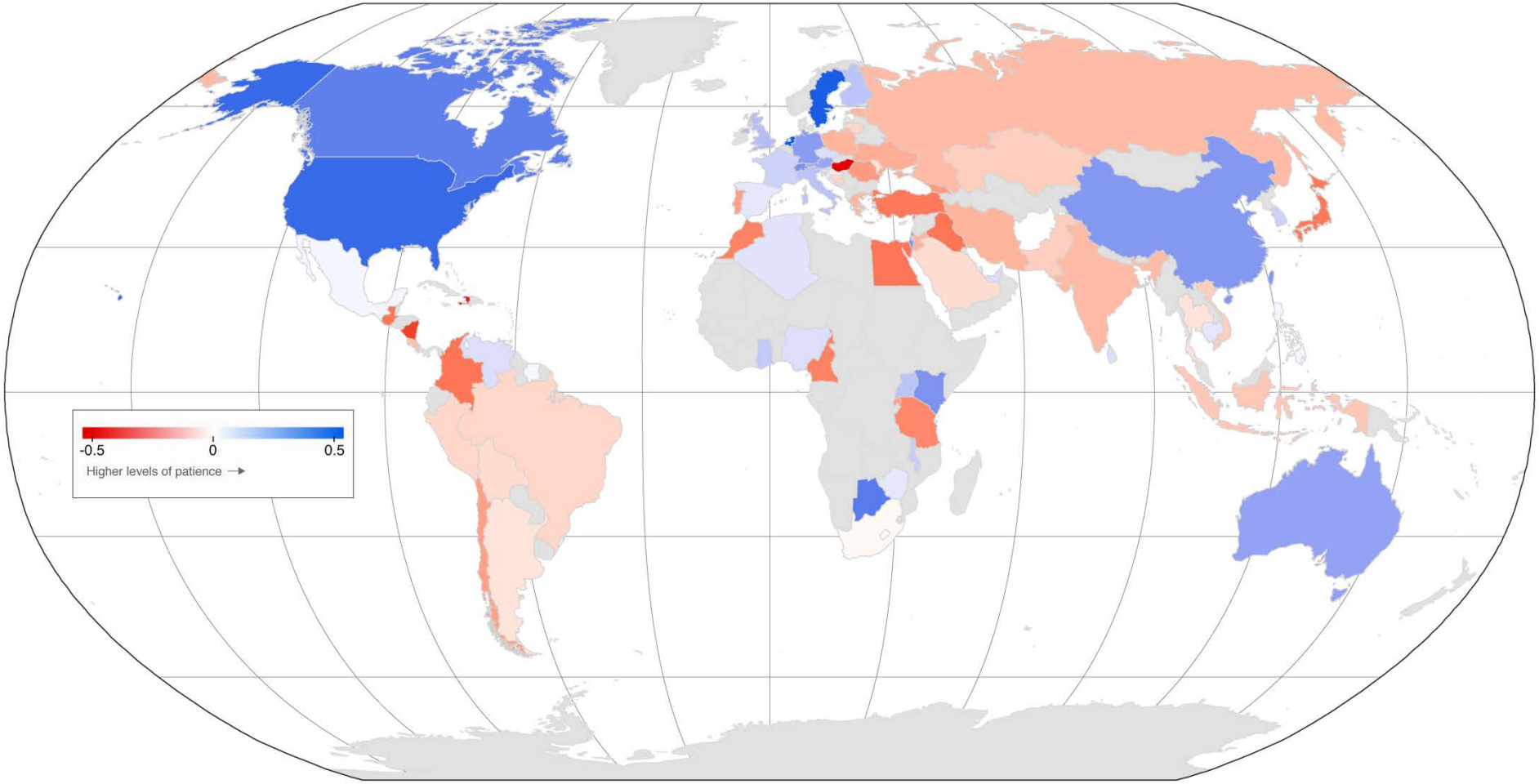
Countries Covered



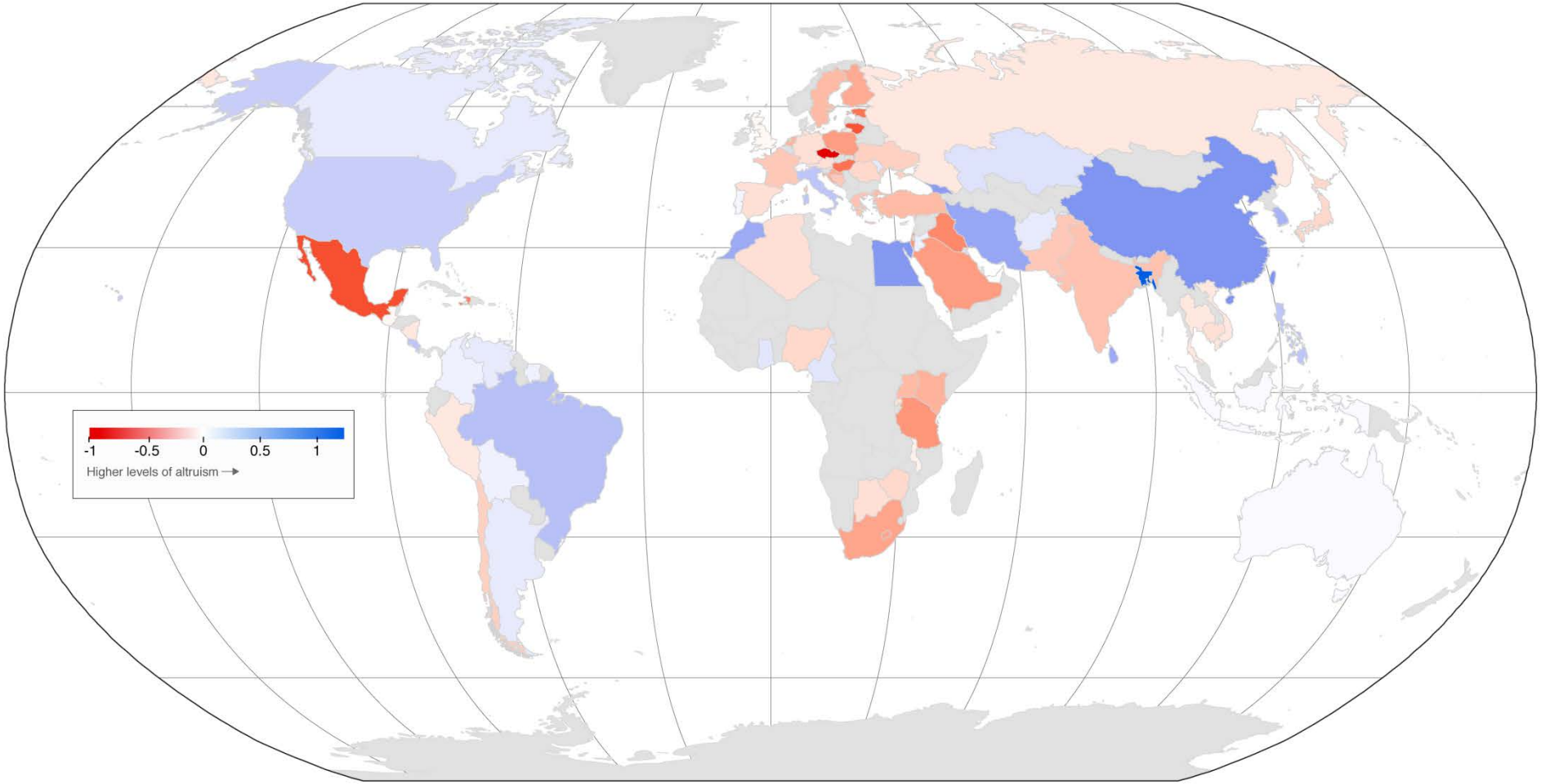
Risk Aversion



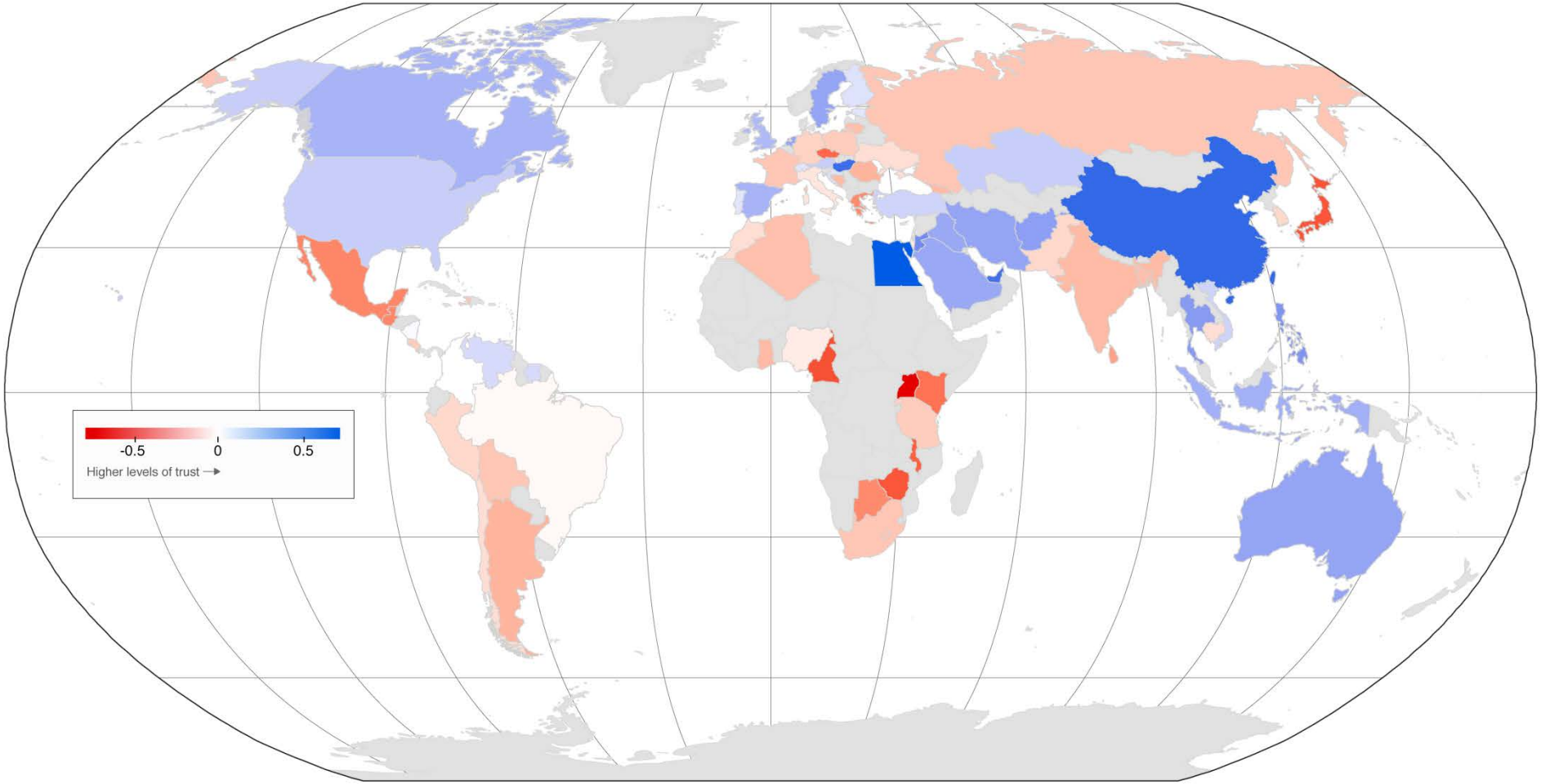
Patience



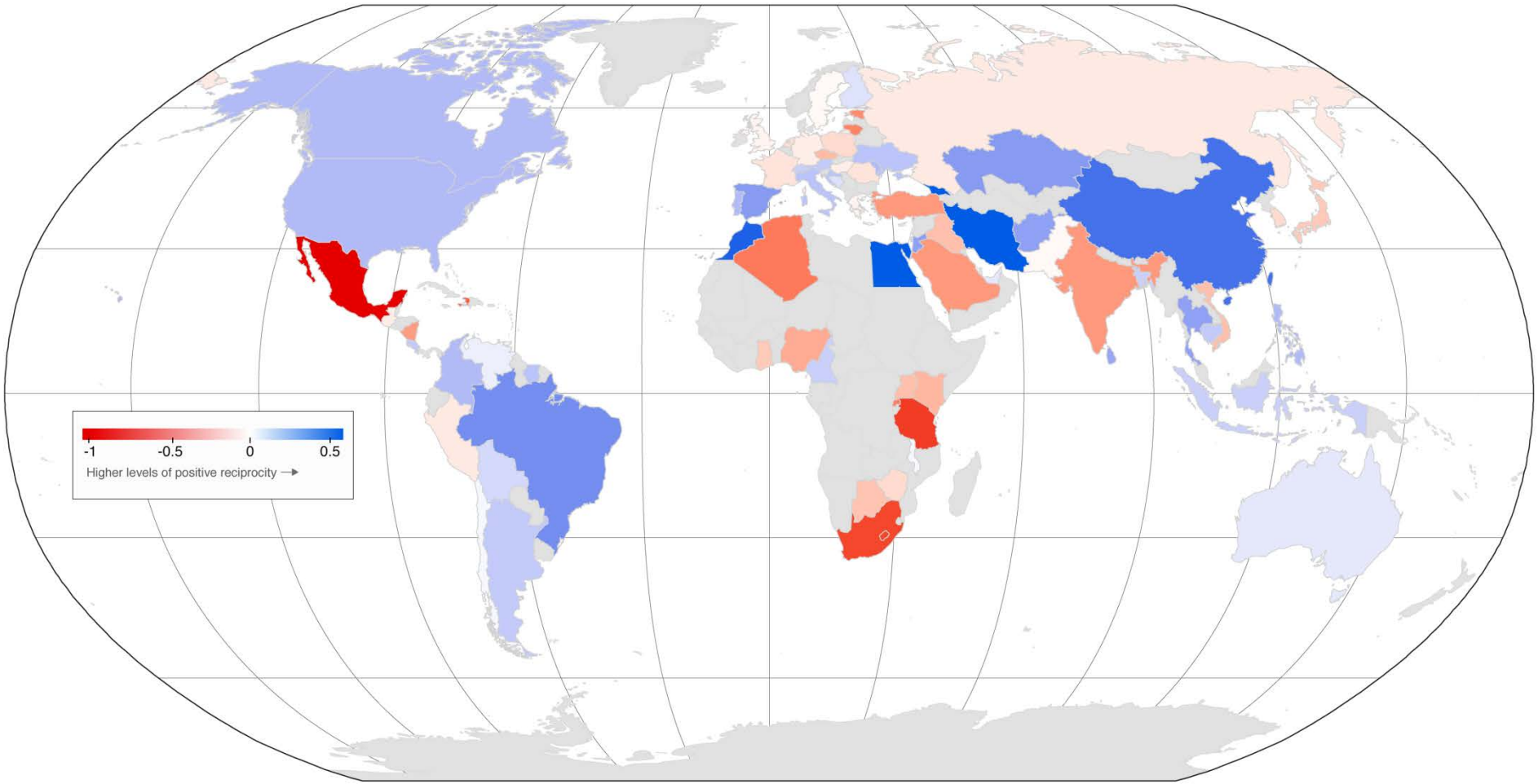
Altruism



Trust



Positive Reciprocity



Negative Reciprocity

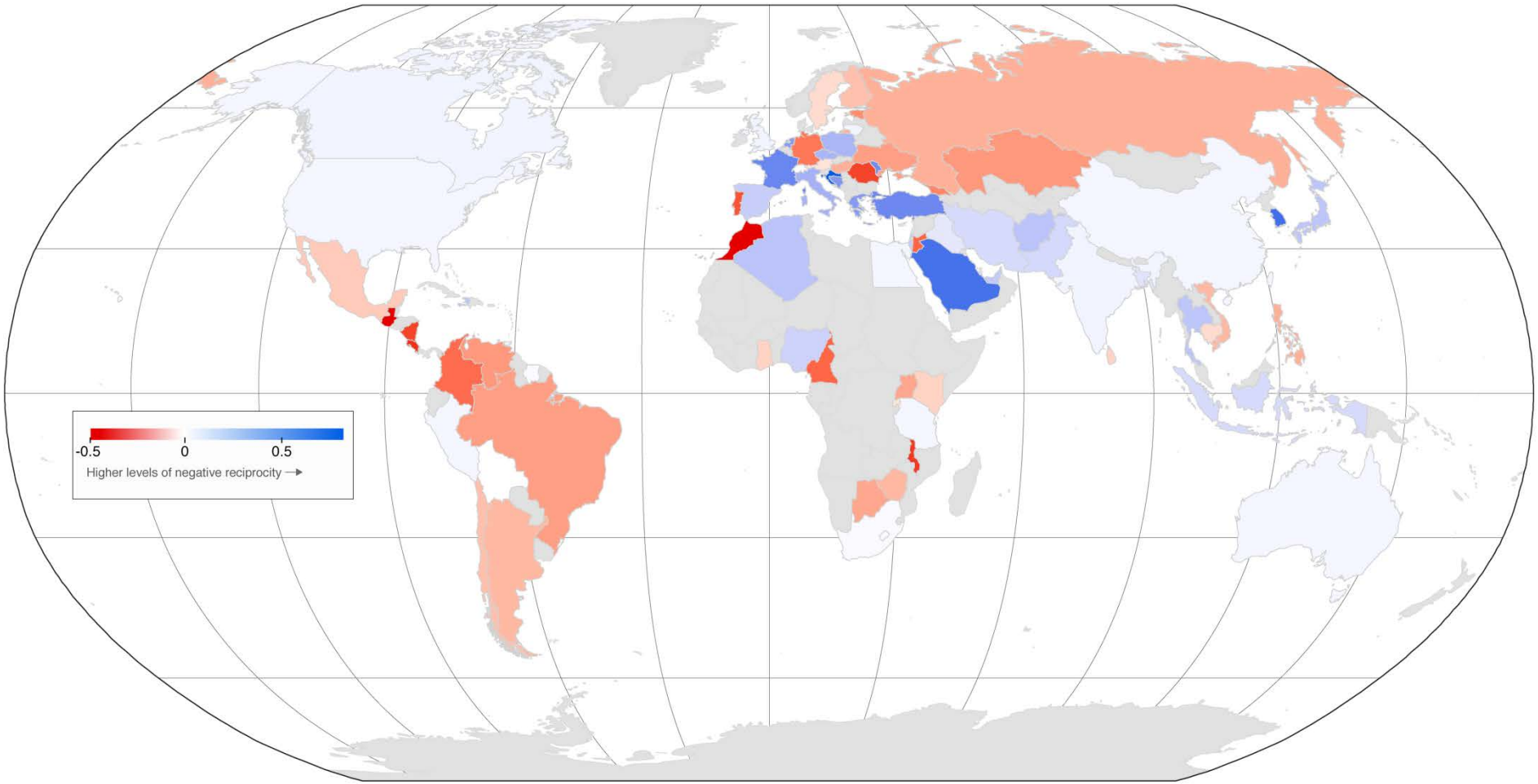


Table 3 : Regional averages and variance decomposition

	Patience	Risk taking	Pos. recip.	Neg. recip.	Altruism	Trust	# Obs.
Western Europe	0.49	-0.11	0.06	0.04	-0.04	0.10	11
Eastern Europe	-0.12	-0.12	-0.02	0.10	-0.22	-0.07	16
Neo Europe	0.73	0.15	0.16	0.02	0.26	0.23	3
South and East Asia	-0.01	-0.10	0.07	0.11	0.13	0.04	13
North Africa & ME	-0.14	0.16	0.07	0.08	0.13	0.23	9
Sub-Saharan Africa	-0.16	0.34	-0.34	-0.11	-0.15	-0.33	11
South America	-0.21	-0.03	-0.08	-0.16	-0.05	-0.10	13
% between-country variation	13.5	9.0	12.0	7.0	12.3	8.2	

Country-Level Analysis

	Patience	Risk taking	Pos. reciprocity	Neg. reciprocity	Altruism	Trust
Patience	1					
Risk taking	0.230**	1				
Pos. reciprocity	0.016	-0.256**	1			
Neg. reciprocity	0.258**	0.193*	-0.154	1		
Altruism	-0.010	-0.015	0.711***	-0.132	1	
Trust	0.190	-0.062	0.363***	0.160	0.273**	1

Table 4 : Pairwise correlations between preferences at country level

⇒ Patience and risk taking moderately correlated; high correlations among "prosocial" traits altruism, positive reciprocity, and trust

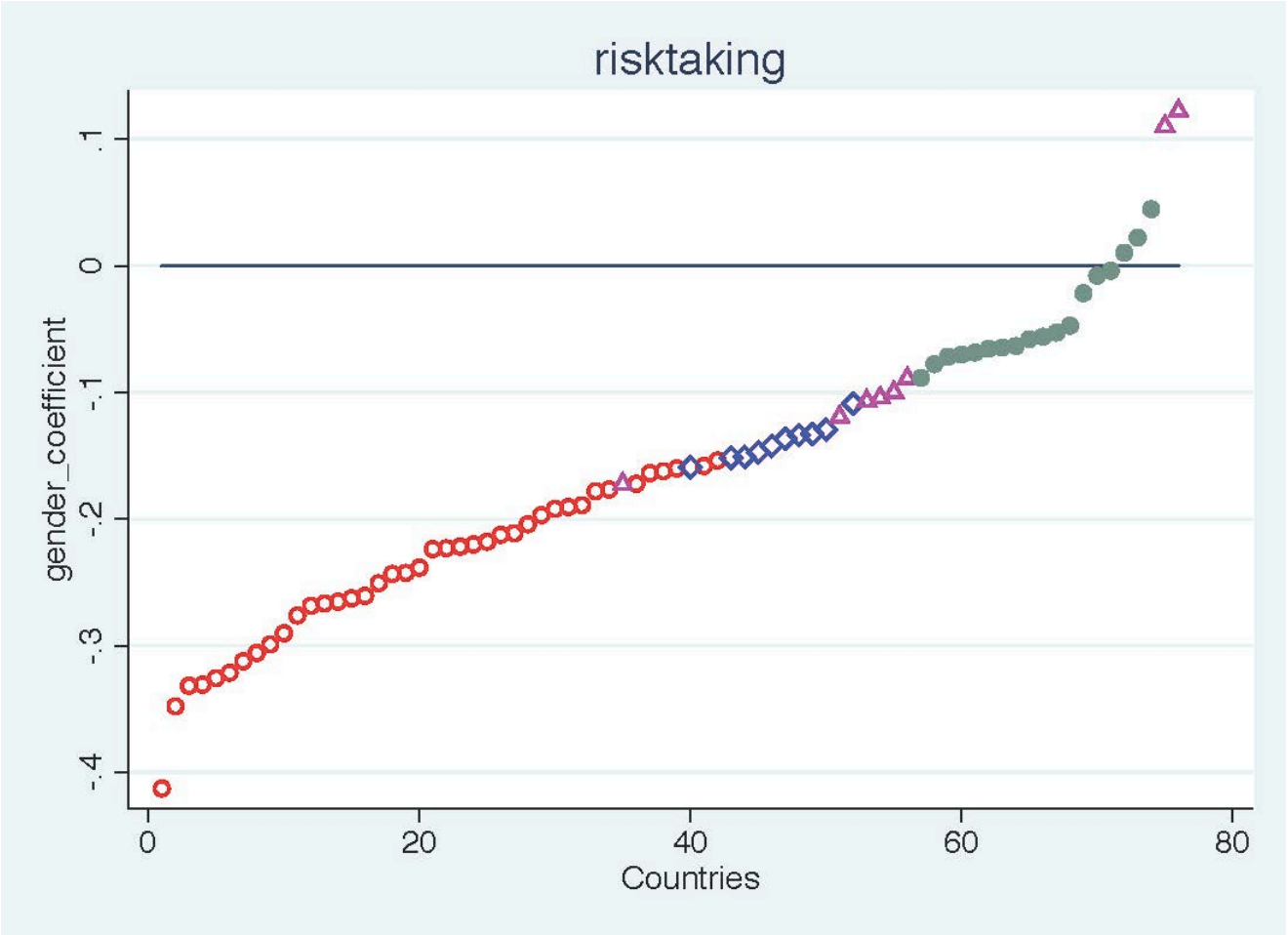
Determinants/Correlates of Economic Preferences

Evidence from World Poll Data

Preferences and Individual Characteristics

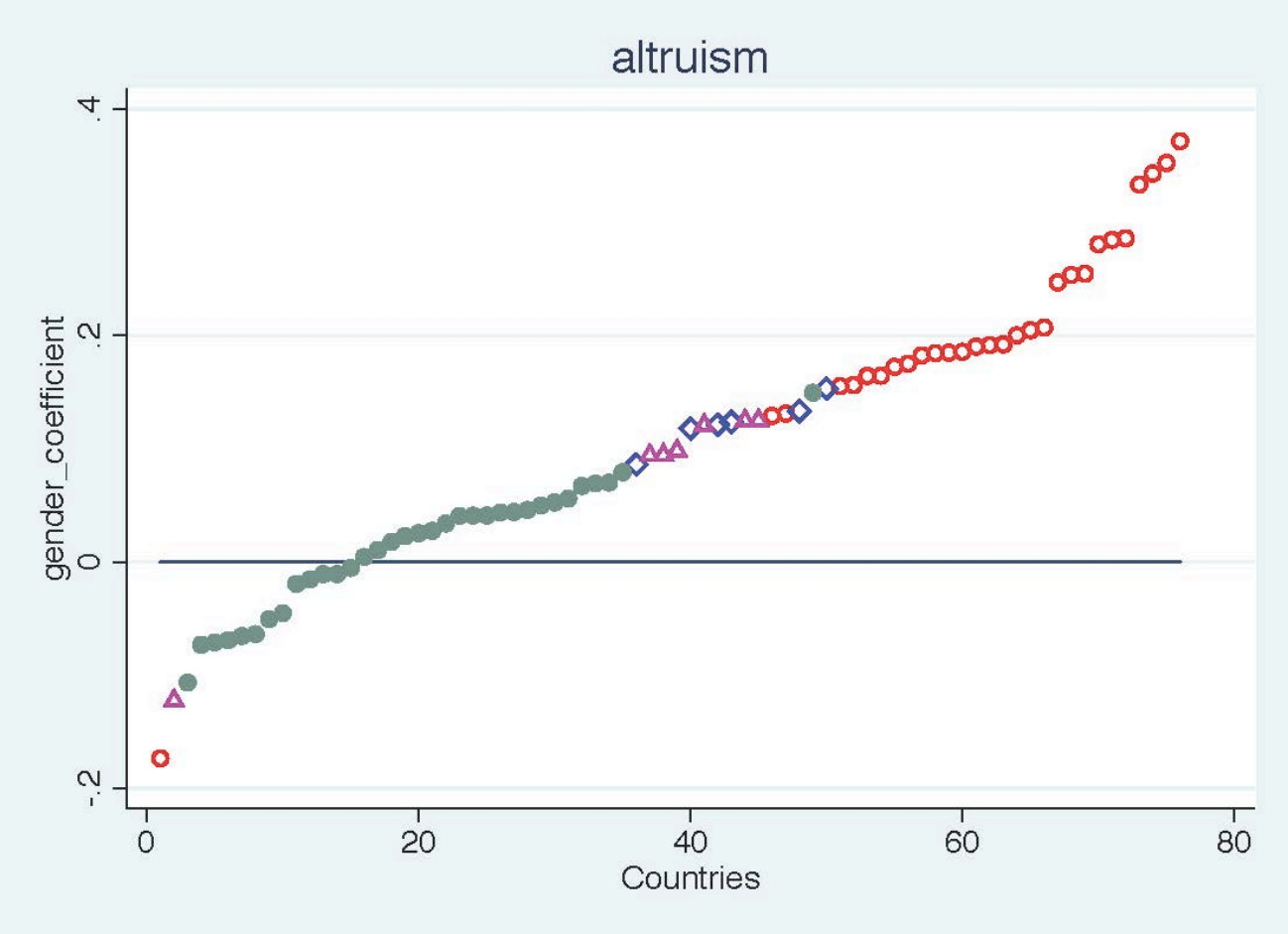
	Patience	Risk taking	Pos. reciprocity	Neg. reciprocity	Altruism	Trust
	(1)	(2)	(3)	(4)	(5)	(6)
Age	0.72***	-0.083	1.02***	-0.36*	-0.0060	0.37*
	(0.17)	(0.20)	(0.17)	(0.19)	(0.14)	(0.21)
Age squared	-1.45***	-1.20***	-1.17***	-0.45**	0.015	0.032
	(0.20)	(0.21)	(0.18)	(0.18)	(0.15)	(0.20)
1 if female	-0.056***	-0.17***	0.049***	-0.13***	0.10***	0.066***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Subj. math skills	0.028***	0.046***	0.038***	0.040***	0.044***	0.056***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Constant	-0.37***	0.21***	-0.079**	0.37***	-0.064**	-0.078**
	(0.04)	(0.04)	(0.04)	(0.05)	(0.03)	(0.04)
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	78501	78445	78869	77521	78632	77814
$_R2$	0.165	0.167	0.128	0.112	0.135	0.111

Gender and Risk Attitudes



Notes: Distribution of gender coefficients across countries, where the gender coefficient is coded as 1=female. Green not significant, pink at 10, blue at 5, red at 1 %. All coefficients are conditional: They are derived from country-level regressions that control for income, education, math skill, and age. Resulting (conditional) gender coefficients are plotted.

Gender and Altruism



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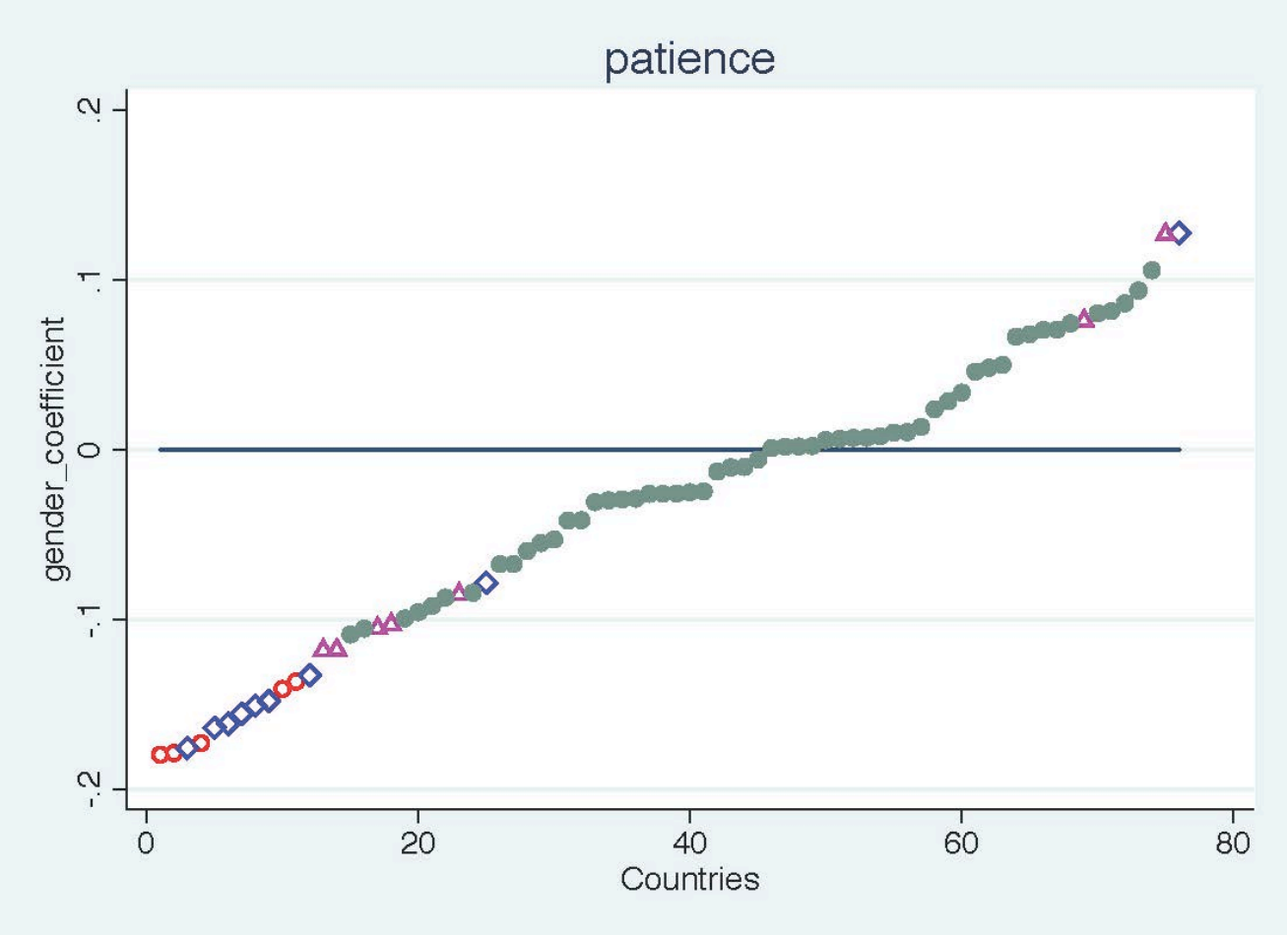
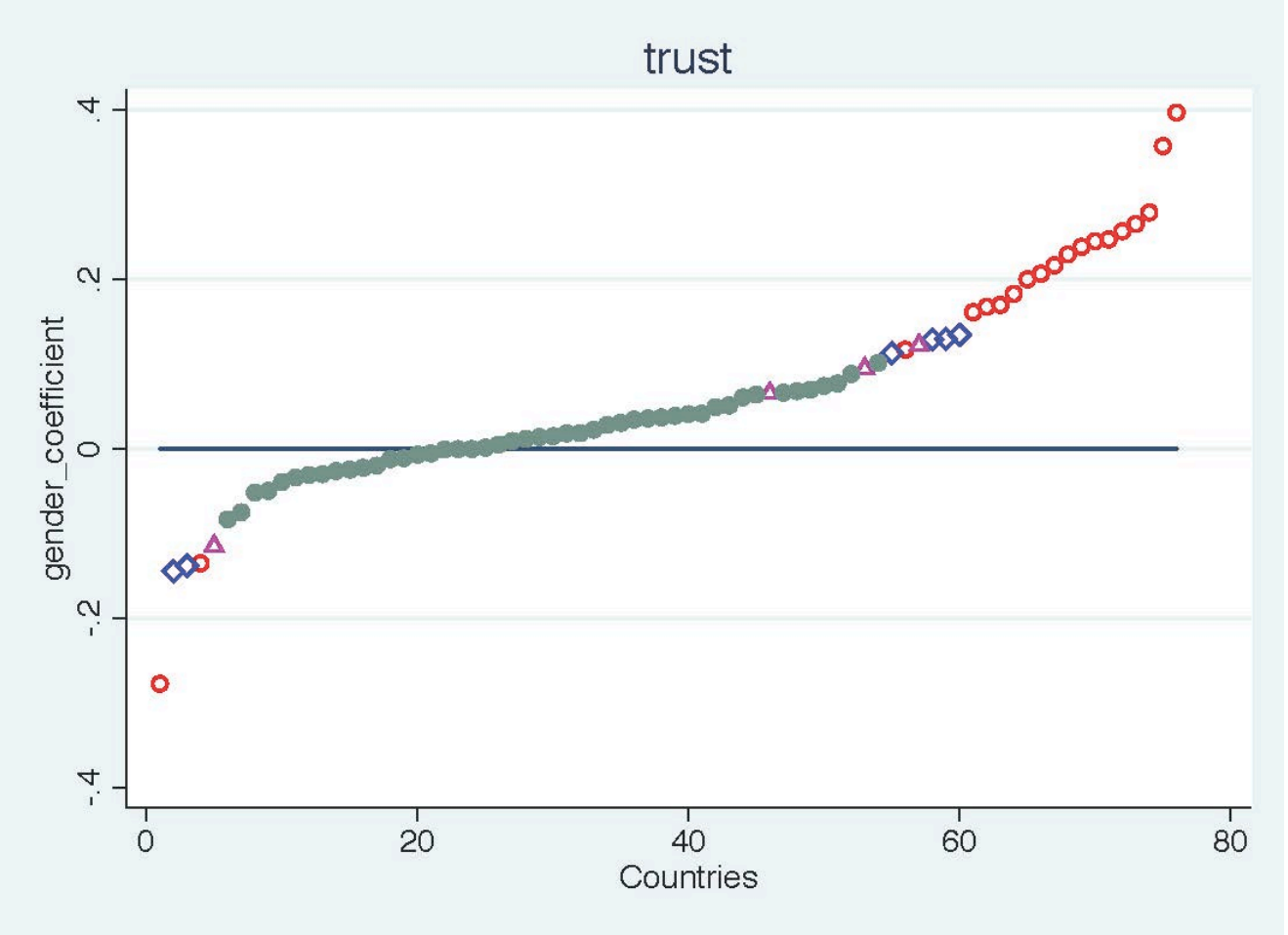
Gender and Patience



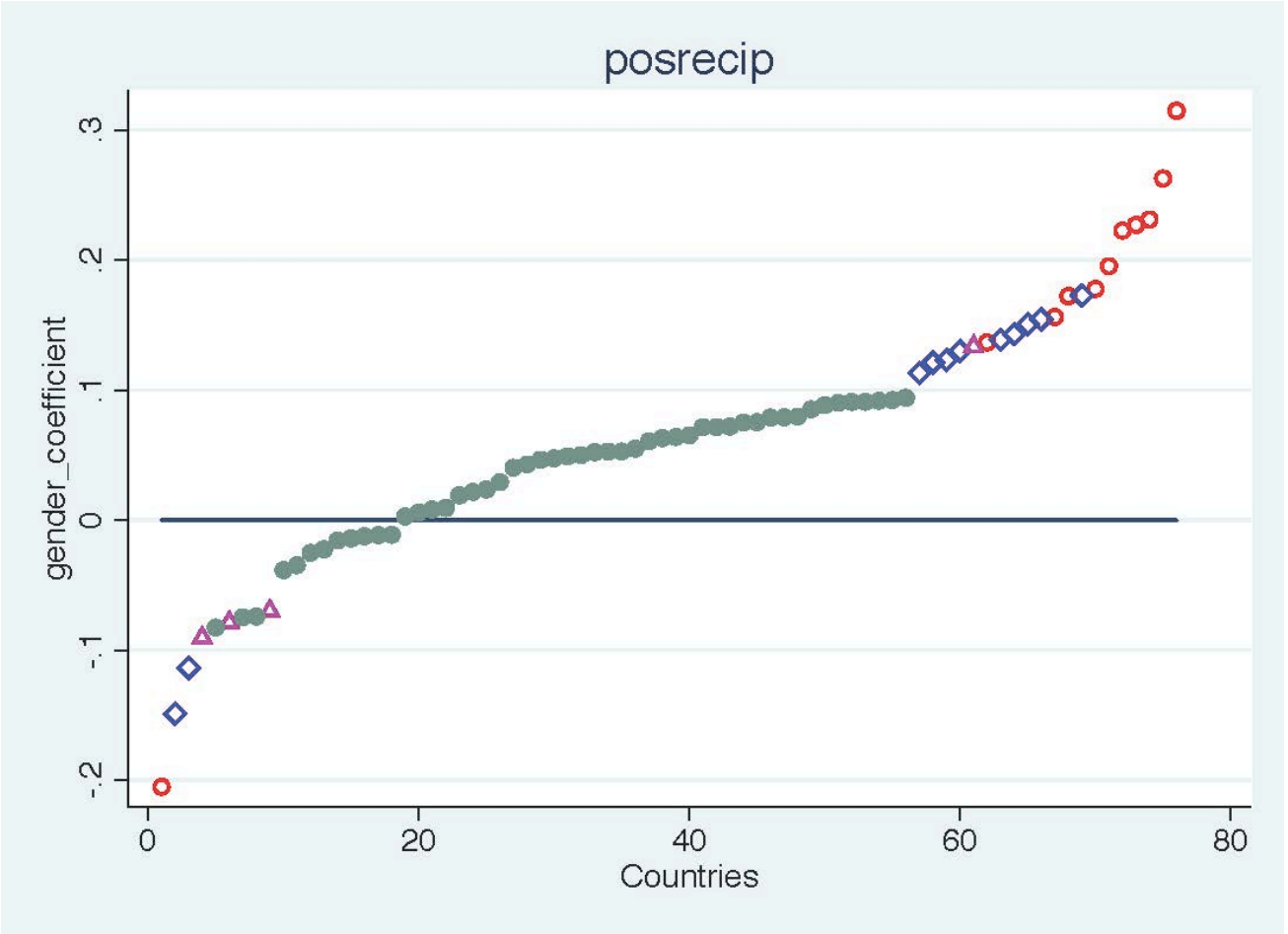
Notes: Distribution of gender coefficients across countries, where the gender coefficient is coded as 1=female. Green not significant, pink at 10, blue at 5, red at 1 %. All coefficients are conditional: They are derived from country-level regressions that control for income, education, math skill, and age. Resulting (conditional) gender coefficients are plotted.

Gender and Trust



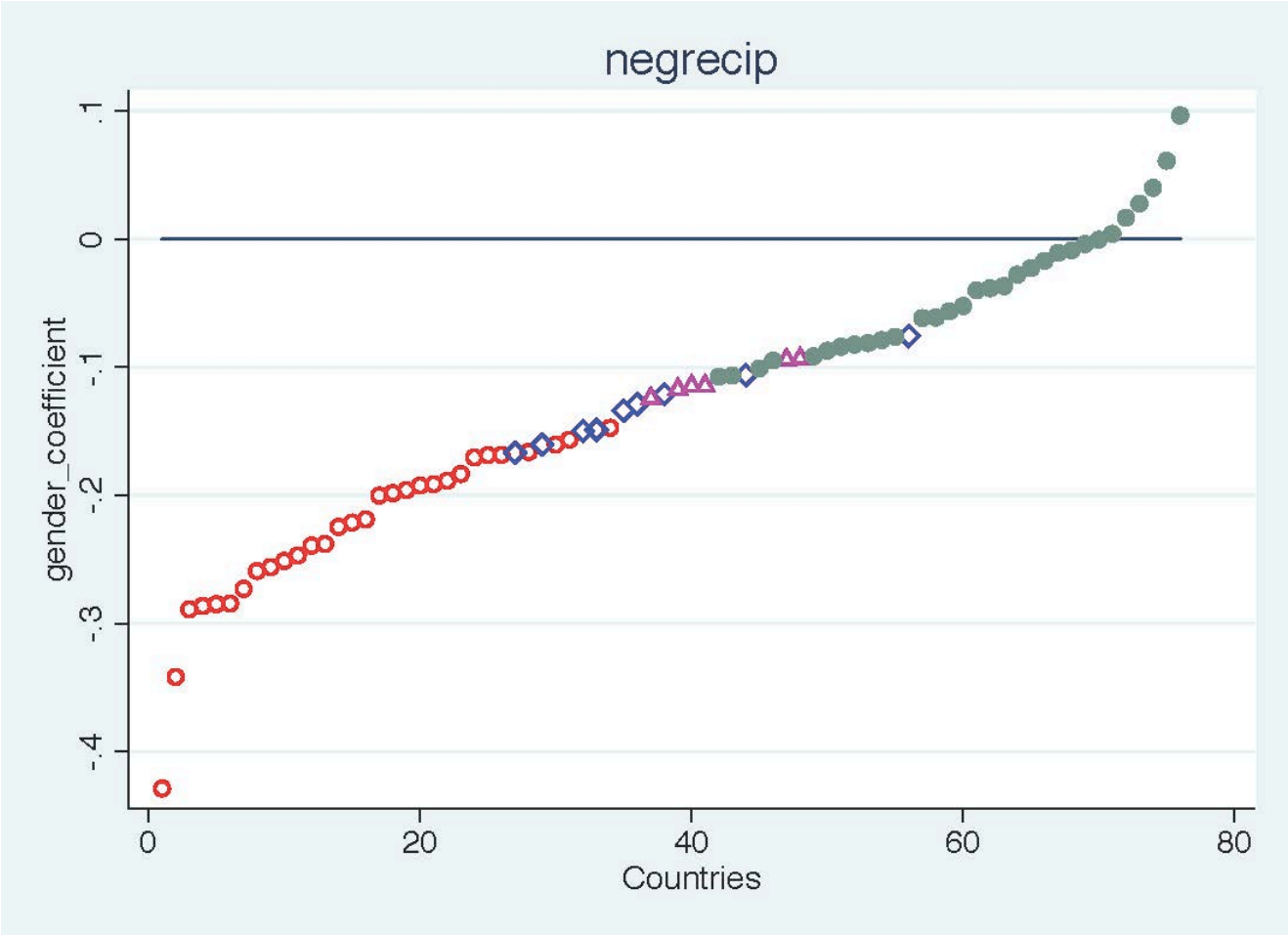
Notes: Distribution of gender coefficients across countries, where the gender coefficient is coded as 1=female. Green not significant, pink at 10, blue at 5, red at 1 %. All coefficients are conditional: They are derived from country-level regressions that control for income, education, math skill, and age. Resulting (conditional) gender coefficients are plotted.

Gender and Positive Reciprocity



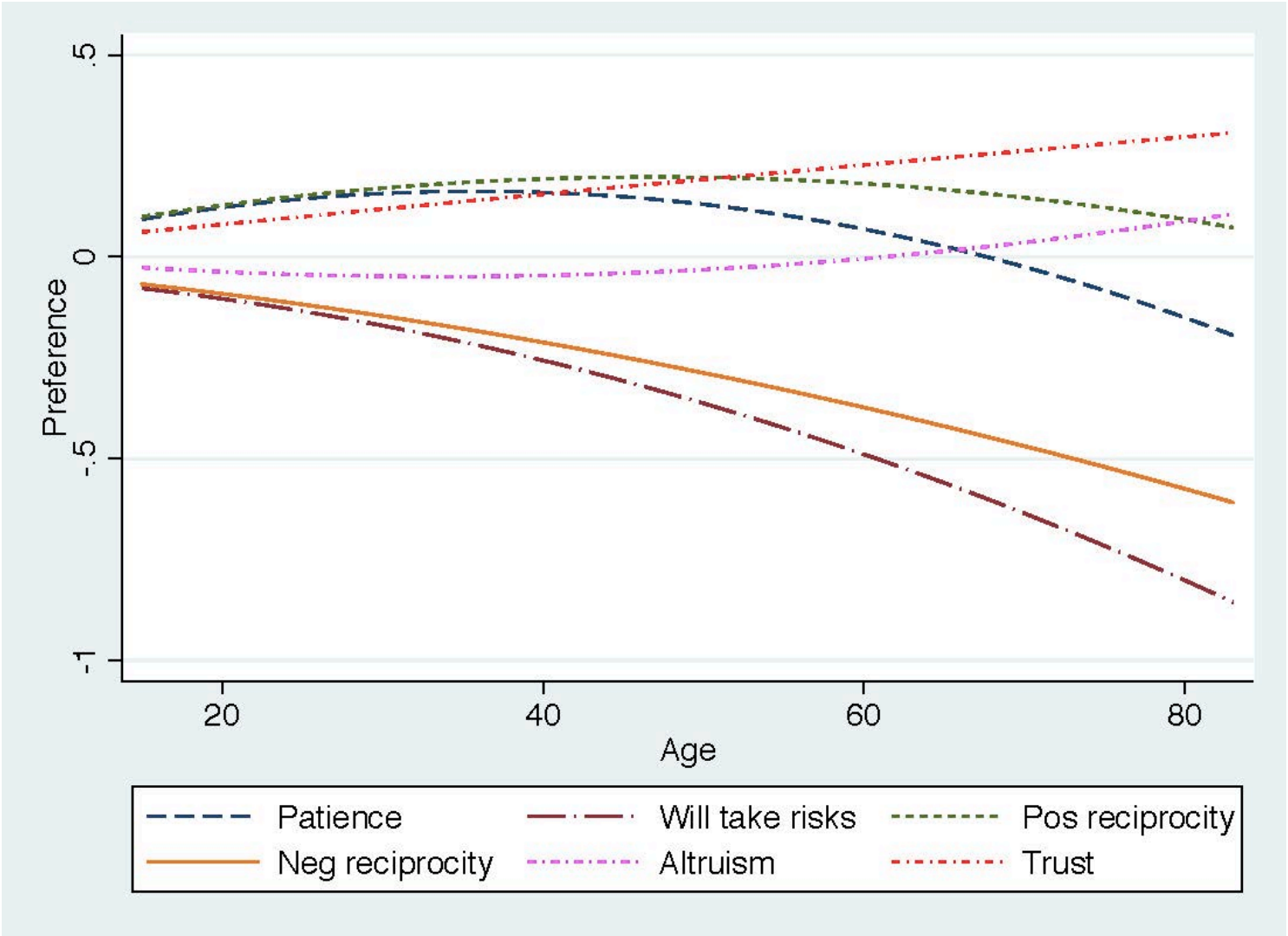
Notes: Distribution of gender coefficients across countries, where the gender coefficient is coded as 1=female. Green not significant, pink at 10, blue at 5, red at 1 %. All coefficients are conditional: They are derived from country-level regressions that control for income, education, math skill, and age. Resulting (conditional) gender coefficients are plotted.

Gender and Negative Reciprocity



Notes: Distribution of gender coefficients across countries, where the gender coefficient is coded as 1=female. Green not significant, pink at 10, blue at 5, red at 1 %. All coefficients are conditional: They are derived from country-level regressions that control for income, education, math skill, and age. Resulting (conditional) gender coefficients are plotted.

Age effects


Preference
.5
0
-.5
-1
20
40
60
80
Age
Patience
Will take risks
Pos reciprocity
Neg reciprocity
Altruism
Trust

Determinants/Correlates of Big Five

Table Correlates of Big Five Traits

	Males						Females					
	O	C	E	A	N	Loc	O	C	E	A	N	Loc
Christalized intelligence	-.018 (.033)	.035 (.033)	.063* (.036)	-.014 (.032)	.027 (.034)	.037 (.035)	-.065** (.03)	.034 (.036)	.001 (.034)	-.065** (.029)	-.039 (.032)	-.008 (.033)
Fluid intelligence	.038 (.039)	.013 (.034)	-.002 (.037)	.028 (.034)	-.029 (.037)	-.03 (.037)	.059* (.033)	.02 (.037)	.031 (.037)	.017 (.03)	.019 (.035)	-.033 (.034)
Age	.044*** (.014)	-.003 (.013)	-.014 (.013)	-.024** (.012)	.002 (.013)	-.016 (.014)	.044*** (.012)	.003 (.012)	.008 (.013)	-.01 (.011)	.033*** (.012)	-.022* (.012)
Age^2	-.0004*** (.0001)	5.15e-06 (.0001)	.00007 (.0001)	.0002** (.0001)	.00004 (.0001)	.0001 (.0001)	-.0004*** (.0001)	-.0001 (.0001)	-.00006 (.0001)	.0001 (.0001)	-.0003*** (.0001)	.0002* (.0001)
Height	.001 (.004)	.012*** (.005)	.005 (.005)	-.005 (.004)	-.002 (.005)	.0001 (.005)	-.003 (.005)	.013** (.005)	.013*** (.005)	-.0009 (.004)	-.003 (.005)	.003 (.005)
Ln(income)	.036** (.018)	.025 (.016)	-.01 (.015)	-.002 (.014)	-.013 (.017)	.025 (.016)	.009 (.017)	.0009 (.016)	.024 (.016)	.006 (.015)	-.041*** (.015)	.051*** (.017)
Ln(income from assets)	-.011 (.014)	-.002 (.014)	-.002 (.015)	-.035*** (.013)	-.025* (.014)	.045*** (.014)	.001 (.014)	.006 (.015)	-.001 (.014)	-.02 (.012)	.018 (.014)	-.005 (.015)
Ln(income from pubtrans)	.008 (.01)	-.011 (.009)	-.007 (.009)	-.005 (.009)	.0005 (.009)	-.006 (.009)	-.019** (.01)	-.0003 (.01)	.014 (.009)	-.014* (.008)	-.012 (.01)	-.005 (.009)
Yrs of Edu	.004 (.012)	.07*** (.012)	.016 (.013)	.005 (.011)	-.009 (.013)	.026** (.012)	.011 (.013)	.045*** (.014)	.031** (.012)	.004 (.011)	-.039*** (.013)	.04*** (.013)
Number of children	-.024 (.048)	-.094** (.042)	-.036 (.045)	.037 (.041)	.06 (.049)	.031 (.046)	.018 (.045)	-.126*** (.042)	-.073 (.045)	.002 (.038)	.067 (.042)	.085** (.04)
Risk aversion (f)	-.036 (.033)	-.088*** (.033)	-.144*** (.034)	-.071** (.028)	.032 (.033)	-.069** (.032)	-.061** (.028)	-.063** (.031)	-.11*** (.03)	-.094*** (.026)	.044 (.03)	-.083*** (.031)
Trust (f)	-.081** (.034)	.023 (.033)	.021 (.034)	.012 (.032)	-.023 (.034)	.055 (.035)	-.086*** (.031)	.008 (.033)	-.056* (.032)	.036 (.028)	-.089*** (.032)	.093*** (.034)
Positive Reciprocity (f)	.296*** (.037)	.148*** (.03)	.181*** (.032)	.287*** (.03)	.003 (.03)	.052* (.031)	.262*** (.036)	.126*** (.033)	.139*** (.035)	.288*** (.033)	.016 (.03)	.046 (.031)
Negative Reciprocity (f)	-.057* (.031)	.038 (.033)	-.056* (.033)	-.223*** (.032)	.156*** (.033)	-.183*** (.033)	-.114*** (.03)	.003 (.032)	-.037 (.031)	-.305*** (.027)	.066** (.033)	-.182*** (.032)
Impatience	-.1*** (.03)	-.013 (.032)	.022 (.033)	-.139*** (.029)	.185*** (.034)	-.063** (.032)	-.067** (.03)	.007 (.031)	-.017 (.03)	-.129*** (.026)	.193*** (.032)	-.056* (.032)
N	1011	1011	1011	1011	1011	1011	1085	1085	1085	1085	1085	1085
R-squared	.123	.097	.069	.193	.074	.096	.112	.055	.044	.251	.076	.087

Notes: O=Openness to Experience, C=Conscientiousness, E=Extraversion, A=Agreeableness, N=Neuroticism. The table displays regression coefficients of factor scores on covariates. Height is a person's body height, Ln(income), Ln(income from assets) and Ln(income from pubtrans) denote total yearly gross household income, total yearly gross household income from assets and total yearly gross household income from public transfers respectively. Source: GSOEP, waves 2004-2008, own calculations.

Source: Table A3 in web appendix of Almlund et al. (2011)