# Savings Inequality and Future-Orientedness

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# Introduction

- Not all people are equally capable or equally interested in planning for the future.
- This results in a lot of inequality in wealth at retirement.
- People are "future-oriented" if they more likely than average to:
  - care about their future consumption,
  - to plan for the future
  - to follow through on their plans.

- Can differences in future-orientedness help us explain:
  - inequality in household wealth at retirement?
  - long-term dynastic correlations in wealth?
  - non-financial inter-temporal choices? education, health, timing of marriage
- by "help" we mean after accounting for effects of usual suspects; income, initial wealth, education
- economic theory has difficulty accounting for both low savings of the poorest and high savings of the richest 1%

- How could we possibly disentangle the effects of people being future-oriented from all the other things that affect wealth?
- Using outcomes alone won't do it; being future oriented is likely to mean you choose more education, or careers with higher income growth.
- The Panel Study of Income Dynamics (PSID) simply asked people how they felt about planning
  - Attitude questions for household heads 1968-72, spouses 1976
  - Wealth reports every 5 years 1984-1999, every 2 years 2001-2019
- Having saved a lot might cause people to feel that they are indeed very future-oriented, but attitude responses 20 years earlier are unlikely to be tainted.

- We construct an index of an individual's "future-orientedness"
- Based on survey data with self-reported attitudes to planning in 1968-76
- This attitude index = estimated effect of attitude reports on savings/income ratio of married couples in the 1980s and 1990s.
- We use a simple econometric approach to control for education, initial wealth and income.

- Inequality of households in this index has large effects on inequality of wealth at retirement.
- Savings effect of the husbands' index is generally larger than that of the wife's index.
- High values of the index also predict better health and exercise, low values predict smoking and divorce.
- Parent's indices predicts offspring savings.

### **Survey Questions**

Table 1: Attitude Questions and I	Responses
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Life	e Works Or	ut	
	1	45.48	Usually been pretty sure.
	5	38.4	More times when not very sure about it.
Pla	ns Ahead		
	1	41.48	Plan ahead.
	5	45.48	Live more from day to day.
Ca	ries Out P	lans	
	1	47.86	Usually get to carry out things the way expected.
	5	34.53	Things usually come up to make me change plans.
Fin	ishes Thin	gs	
	1	67.99	Nearly always finish things.
	5	20.89	Sometimes have to give up before they are finished.
Pre	fers to Spe	end rather	than Save
	1	35.51	Would rather spend money and enjoy life today.
	5	36.44	Save more for the future.
Th	inks About	the Futur	re
	1	37.46	Think a lot about things that might happen.
	5	20.89	Usually just take things as they come.

V2	748	RAT	HR SPEND	OR	SAVE			
K6 mo	. Would re for 1	you rath the futui	her spend re?	your	money	an	d enjoy life today, or save	
	Count	90		Val	ue/Rang	je	Text	
	2,325	45.95				1	Would rather spend money and enjoy life today	
	41	.81				2	Rather spend and enjoy, qualified	
	535	10.57				3	Pro-con; want to do both	
	68	1.34				4	Save more for the future, qualified	
	2,045	40.42				5	Save more for the future	
	46	.91				9	NA; DK	
Ye Av	Years [68]V300 [69]V775 [70]V1442 [71]V2153 [72]V2748							
Index     Family Public Data Index       Summary:     01>ATTITUDES AND BEHAVIORS       02>Attitude Items       03>head/reference person       04>prefers saving to spending:						ing:		

Note: This variable NOT flipped in later analysis. Source: PSID 1972-76

V2	744	1	PLAN OR	DAY-	DAY		
K2 tii	. Are y ne, or	ou the } do you ]	kind of p Live more	erson from	that plar day to da	ns his life ahead all the ay?	
	Count	97	5	Va	lue/Range	Text	
	2,182	43.12	2		1	Plans ahead	
	71	1.40	)		2	Plans ahead, qualified	
	105	2.08	3		3	Pro-con; sometimes plans ahead, sometimes doesn't	
	41	.81	L		4	Lives more from day to day, qualified;	
	2,640	52.17	,		5	Lives more from day to day	
	21	.42	2		9	NA; DK	
Ye Av	Years [68]V296 [69]V771 [70]V1438 [71]V2149 [72]V2744 Available: [75]V4089						
Index         Family Public Data Index           Summary:         01>ATTITUDES AND BEHAVIORS           02>Attitude Items         03>head/reference person           04>plans ahead:         04>plans							

Note: This variable flipped in later analysis Source: PSID 1972-76

- Each attitude is recoded as:
  - 1 = more future-oriented than mean
  - 0 = less future-oriented than mean
- Empirical analysis in three stages:
  - 1. instrumental: predict education and income growth
  - 2. intra-household: spouse attitudes vs. married-couple savings
  - 3. inter-generational: transmission: parental attitudes index vs. savings of married offspring

## **Results: First Generation**

## Model 1: W/Y Regression on Attitude Sample

- We estimate effect of reported attitudes on household net worth (wealth) for respondents who reported attitudes in 1970s and were married at time wealth is measured
  - dependent variable = wealth/income (W/Y) at end of period
  - controls: W/Y at start of period, age, predicted education and income growth.
  - endogeneity: being future-oriented may cause higher levels of education and income growth
- 929 households: head aged 40-70 in 1984, 1989, 1994, 1999,2001,2003
  - not necessarily married in 1970s, when attitudes were measured
  - Separate regression estimation by sex of respondent

### Model 1: Married-Couples Estimates

- "Plans Ahead"
  - "the kind of person that plans (...) life ahead"
  - husband saves additional 14% of income
  - wife saves additional 11% of income
- "Life Works Out"
  - "pretty sure (...) life would work out".
  - husband saves additional 22% of income
  - wife saves additional 2% of income
- "Spend or Save"
  - "prefers to save"
  - husband saves 8% of income less
  - wife saves 2% of income less

W/Y Estimates

- $\bullet\,$  For each spouse, we compute the "Attitude Index" (AI) as the sum of estimated attitude effects on W/Y.
  - Whose AI matters more? Answer: Husband's effect is twice as large as wife's. spouse Estimates
  - Which is more important: the larger AI of the two or the smaller? Answer: No difference; its not just about knowledge. Max/Min Estimates
- We compute the *Household* AI as the sum of the estimated effects each spouse's AI.
- Note that estimated effects are conditional on W/Y two years earlier.
- We should expect much bigger effects from saving over entire labor-force career.

## Inequality of Retirement Wealth

- How big are effects of attitude index on wealth dispersion at retirement?
- Method 1: Compound estimated household AI effects over 40 years
  - Result: Households with AI at one standard deviation above mean have additional wealth equal to one year's income, compared to those one standard deviation below mean compounding Equation
- Method 2: Simulate US economy for 40 years
  - Compare Gini coefficient for Wealth in two versions of economy, with and without AI inequality
  - Gini = 1 if all wealth owned by richest family, 0 if all families have equal wealth.
  - Result: Wealth Gini higher by 16% to 30% with Al inequality  $\mathsf{simulation}_{\mathsf{Results}}$

- Individual's attitude Index = sum of estimated attitude responses in 1970s on households savings in 1990s.
- Households where the spouses reported that they were keen on planning had significantly higher savings
  - Households where the spouses reported they prefer to save did NOT have higher savings
  - Effects of husband's Attitude Index on W/Y twice as strong as that of wife.
- Heterogeneity of Attitude Index has large impact on wealth inequality at retirement.

# **Results: Second Generation**

## Wealth Regression for Married-Offspring Sample

- We now repeat the W/Y regression for the households of married offspring of the parents in the 1970s attitudes sample
  - Offspring sample: aged 40-70, pooled over years 2003-2019
  - Sample size increases over time
- The attitude variables are now the *parent's* savings indices
  - The attitude questions were not asked of the offspring
  - Parent's AI available for only one of the spouses

- Result: having a parent with AI = 1 raises wealth/income ratio
  - mothers: by 0.59 for sons, by 0.95 for daughters
  - fathers: by 0.85 for sons, by -0.07 for daughters
- Effects reduced by control variables
  - If controls include: Employed, Self-employed, Limited business
  - Mothers' effect on daughters falls to 0.51; Fathers' effect now negative
  - Mothers' effect on sons also falls, to 0.42; Fathers' effects now larger

Offspring W/Y Results

## Other Inter-temporal Trade-offs

A high AI is associated with higher probability of:

- Never having been a cigarette smoker
- Being an ex-smoker, conditional on having been a smoker
- Being in good health, exercising regularly

Based on regression estimates for self-reported health, and for smoking  $\ensuremath{\mathtt{Smoking Results}}$ 

- A high parent's AI is associated with :
  - higher probability of remaining married, conditional on age at marriage Divorce Results
  - lower age at first birth, except mother's AI raises daughter's age at first birth First-Birth Results
- Based on binary probit regressions for divorce, OLS for age at first birth
  - Controlling for education, race and parent's poverty

- How do households differ as we go from low AI to high AI?
- Attitudes sample Attitudes sample distribution
- OffSpring sample offspring distribution

- Interpretation: wealth inequality is linked to deep-seated personality differences that influence inter-temporal decisions more generally
  - Attitudes effect on wealth is distinct from effects of knowledge or skills.
  - Wives have much less influence than husbands over savings.
  - Transmission from parents to children could be cultural or genetic.
- Caveat: We define savings as change in net worth
  - this depends on both rate of return and savings rate
  - PSID data is not rich enough allow us to distinguish between the two

- Textbook economics assumes everyone's capable of choosing optimally among all feasible plans for the future.
  - Variation would in this case be due to differences in preferences or rate of return (financial acumen).
- The effects of our attitude index (AI) suggest people vary in *ability* to make tradeoffs between the present and the future
  - Not just patience: "Prefers to save" does not predict higher wealth
  - Not just financial acumen: Non-pecuniary effects of AI: health, divorce
  - Could be variation in rationality, as per Kariv et. al. (2014)
- Transmission from parents to children :
  - could be genes, as in Clark(2014) and Barth et. al. (2020),
  - could be culture as in Alesina (2020) and Benhabib et. al. (2021)

Conclusion

- Some married-couple households are more likely than others to plan for the future: they are more "future-oriented".
- We estimated large effects of being future-oriented:
  - on wealth inequality at retirement
  - on non-financial outcomes like health, exercise and smoking.
  - on offspring's wealth, timing of children and divorce.
- Future-orientedness can help explain wealth inequality, long-run persistence of wealth and education across generations.



#### **Coefficient Estimates: Attitude Sample**

	Outcome:	W/Y Ratio
	Husbands	Wives
Life Works Out	0.225***	0.022
	(0.016)	(0.014)
Plans Ahead	0.142***	0.106***
	(0.016)	(0.013)
Carries Out Plans	-0.058***	0.037***
	(0.015)	(0.013)
Finishes Things	0.034*	-0.044***
	(0.019)	(0.014)
Prefers to Save for Later Consumption	-0.080***	0.049***
	(0.015)	(0.012)
Thinks About the Future	0.068***	0.124***
	(0.015)	(0.012)
Initial Wealth	0.702***	0.634***
	(0.005)	(0.005)
Future Income Growth	$-0.251^{*}$	-0.389***
	(0.135)	(0.125)
Observations	1,443	1,575
R <sup>2</sup>	0.404	0.379

 $\label{eq:controls} Dependent \ variable \ is \ wealth/income; \ controls \ include \ age, education, \ race \ and \ year.$ 

#### **Coefficient Estimates: Attitudes Sample**

	Outcome: W/Y Ratio							
	Husbands	Wives	Husbands	Wives	Husbands	Wives	Husbands	Wives
		-7	(	-,		<i></i>	(	9
Life Works Out	0.362***	0.062***	0.225***	0.022	0.225***	-0.001	0.214***	-0.012
	(0.019)	(0.017)	(0.016)	(0.014)	(0.016)	(0.014)	(0.016)	(0.014)
Plans Ahead	0.187***	0.215***	0.142***	0.106***	0.130***	0.096***	0.119 ***	0.093***
	(0.019)	(0.016)	(0.016)	(0.013)	(0.016)	(0.013)	(0.016)	(0.013)
Carries Out Plans	-0.061***	0.128***	-0.058***	0.037***	-0.070***	0.028**	-0.075***	0.020
	(0.018)	(0.016)	(0.015)	(0.013)	(0.015)	(0.013)	(0.015)	(0.013)
Finishes Things	0.131 ***	-0.025	0.034*	-0.044***	0.018	-0.052***	0.012	-0.055***
	(0.023)	(0.018)	(0.019)	(0.014)	(0.019)	(0.014)	(0.019)	(0.014)
Prefers to Save for Later Consumption	-0.027	0.058***	-0.080***	0.049***	-0.075***	0.047***	-0.065***	0.054***
	(0.018)	(0.015)	(0.015)	(0.012)	(0.015)	(0.012)	(0.015)	(0.012)
Thinks About the Future	0.062***	0.239***	0.068***	0.124***	0.059***	0.118***	0.058***	0.114***
	(0.018)	(0.016)	(0.015)	(0.012)	(0.015)	(0.012)	(0.015)	(0.012)
Initial Wealth			0 702***	0.634***	0.698***	0.630***	0 702***	0.634***
			(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
Future Income Growth			-0.251*	-0.389***	-0.616***	-0.991***	-0.476***	-0.866***
			(0.135)	(0.125)	(0.143)	(0.130)	(0.153)	(0.137)
			(0.000)	(0.000)	(0.0.0)	(0.000)	(0.000)	(0.001)
Observations	1,478	1,609	1,443	1,575	1,443	1,575	1,443	1,575
R <sup>2</sup>	0.050	0.058	0.404	0.379	0.405	0.384	0.406	0.386
Controls:								
Standard		Y	,	Y	1	(	1	(
Model			,	Y	,	(	`	(
Education					1	(	,	ć
Income							,	(
Race							,	(
Model Education Income Race				ŕ	3	( (		

Source: Dependent variable = wealth/income. Authors' estimates from the PSID, offspring of attitudes sample. Controls for age, race, location; Model 3 adds education, Model 4 income and Model 5 employment.

	Outcome: Wealth-Income Ratio
Husband's attitude index	0.645***
	(0.039)
Wife's attitude index	0.311***
	(0.040)
W/Y ratio	0.687***
	(0.006)
Future income growth	-0.650***
	(0.156)
Observations	929
R <sup>2</sup>	0.445

Dependent variable is wealth/income; controls include age, education, race and year.

## Joint Effects of the Attitude Index

	Outcome: Parent Saving					
	(1)	(2)	(3)	(4)		
Husband's attitude index	2.080***	0.645***	0.922***	0.956***		
	(0.102)	(0.039)	(0.060)	(0.064)		
Wife's attitude index	1.827***	0.311***	0.635***	0.806***		
	(0.136)	(0.040)	(0.080)	(0.087)		
W/Y ratio		0.687***	0.683***	0.680***		
		(0.006)	(0.006)	(0.006)		
Future income growth		-0.650***	-1.073***	-1.209***		
		(0.156)	(0.163)	(0.171)		
Observations	931	929	929	929		
R <sup>2</sup>	0.065	0.445	0.448	0.449		
Controls:						
Standard	Y	Y	Y	Y		
Model		Y	Y	Y		
Education			Y	Y		
Income				Y		
Race				Y		

#### Dependent variable is wealth/income.

### Max/Min AI Estimates: Attitude Sample

		Model	
	2	3	5
Maximum Al	0.853	0.840	0.696
Waximum Ai	(0.089)	(0.087)	(0.089)
Minimum A1	1.039	0.784	0.764
Winimum Ai	(0.096)	(0.091)	(0.095)
Initial W/Y	0.686	0.683	0.618
	0.006	0.006	0.007
Predicted	-0.641	-1.074	-0.818
Income growth	(0.156)	(0.163)	(0.251)
Wife's Prod. Educ		0.038	0.031
Wile's Fred. Lauc		0.009	0.010
Hub's Drod Educ		0.051	0.034
Hub's Fled. Lauc		(0.008)	(0.009)
R-Squared	0.446	0.448	0.477
MSE	1.046	1.044	1.016
Ν	929	929	929

"Maximum AI" is attitudes index of spouse with higher AI, "Minimum AI" that of the other spouse. Dependent variable is wealth/income, controls include age, race and year. Model 5 also controls for income.

We use a log-linear model to assess magnitude of AI hetereogeneity Suppose that the W/Y ratio,  $\omega_i$  is given by

$$\omega_{ti}^{1} = \alpha_{i} + \beta \omega_{t,i}^{0} + \gamma E_{t-1,i}^{g} + \epsilon_{ti}$$

where

- $\alpha_i$  is the household effect that we will proxy by including attitude variables
- $\omega_{t,i}^0$  is the ratio of initial wealth to period income
- $E_{t-1,i}^{g}$  is the predicted income-growth rate
- $\epsilon_{ti}$  is the usual white-noise error term

Based on model's equation for W/Y, substitute for  $\omega_{ti}^0$ 

• Extending back to t = 0, the terms including  $\alpha_i$  sum to:

$$\omega_{ti}^{1} = \alpha_{i} \sum_{s=0}^{t} \left( \frac{\beta}{1+g^{y}} \right)^{s} + \dots$$

Simulate US economy for 40 years

- Assume:
  - that at age 25, households differ in attitude index  $\alpha_i$ , but no initial wealth inequality,  $\alpha_i$  value is fixed
  - Two simulations: one with no household AI variation, one with estimated variance of AI
  - Income process set to match US data (Kuhn and Rios-Rull (2016))
  - Compare Gini for wealth after 40 years
- Results:
  - Wealth Gini higher by 16% to 30% with AI heterogeneity
  - Magnitude depends on income-growth effect  $\beta_{\rm g_Y}$  but not on earnings persistence  $\rho_{\rm Y}$

#### Inequality of Retirement Wealth: Simulation

Statistic	Bonchmark	β	gy	$\rho_y$	
Statistic	- Deliciliark	Low	High	Low	High
Parameter Value		-0.5	-2	0.30	1.0
Persistence of Earnings	0.69	0.69	0.69	0.36	1.00
Correlation of Wealth and Earnings	0.51	0.42	0.62	0.52	0.63
Persistence of Wealth	0.87	0.93	0.65	0.72	1.00
Correlation of Earnings and Al	0.00	0.00	0.00	0.00	0.14
Correlation of Wealth and AI	0.63	0.61	0.56	0.59	0.74
Correlation of Income growth rate and AI	0.00	0.00	0.00	0.00	0.00
Gini Earnings	0.35	0.35	0.35	0.35	0.35
Gini Wealth: no AI variation	0.57	0.54	0.71	0.59	0.56
Gini Wealth: estimated AI	0.72	0.70	0.83	0.74	0.70
Pct. Change in Wealth Gini	0.26	0.30	0.16	0.26	0.25

#### Table 1: Simulated Wealth after 40 years

Source:Simulated US Population for 40 years.  $\beta_{gy}$  is coefficient on income growth,  $\rho_y$  is auto-correlation of earnings.

	Sons	Daughters
Mother's	.1308	.1289
Attitude Index	(0.102)	(0.102)
Father's	.2433	.2218
Attitude Index	(0.134)	(0.139)

Notes: Mean and standard deviation of parent's attitude index for married offspring sample. return to discussion

### **Coefficient Estimates: Offspring Sample**

	Outcome: W/Y Ratio							
	Husbands (1	Wives )	Husbands (2	Wives !)	Husbands (3	Wives )	Husbands (4	Wives )
Mother's Attitude Index	0.667***	0.900*** (0.052)	0.587***	0.954***	0.543*** (0.092)	0.790*** (0.092)	0.669*** (0.094)	0.740*** (0.093)
Father's Attitude Index	0.848***	0.579*** (0.049)	0.877***	-0.071 (0.065)	0.619*** (0.075)	-0.133* (0.069)	0.705	-0.179** (0.074)
Initial Wealth			0.586*** (0.006)	0.573*** (0.007)	0.574*** (0.006)	0.572*** (0.007)	0.580*** (0.006)	0.567*** (0.007)
Future Income Growth			-0.536*** (0.189)	0.676*** (0.209)	-1.055*** (0.189)	0.224 (0.223)	-0.277 (0.214)	-0.086 (0.229)
Observations R <sup>2</sup>	660 0.064	645 0.085	545 0.490	531 0.435	545 0.505	531 0.436	545 0.509	531 0.437
Controls: Standard Model Education Income Race	Ň	×	2		Y Y Y		1 1 1 1	

Source: Dependent variable = wealth/income. Authors' estimates from the PSID, offspring of attitudes sample. Model 4 includes controls for education, income, race and employment.

Household Pctile	Husband Owns / Operates Ltd Business	Husband's Parents were Poor	Husband's Parents were Rich	Wife's Parents were Poor	Wife's Parents were Rich
0 to 25	0.263	0.576	0.129	0.391	0.043
75 to 100	0.329	0.459	0.074	0.368	0.098

Source: Authors' estimates from the PSID, attitudes sample. Rankings by sum of spouse's effects.

		Means					Medians				
Sample	Parents' Attitudes Pctile	Annual Income	Terminal Wealth	Initial Wealth	W/Y Ratio	Initial W/Y Ratio	Annual Income	Terminal Wealth	Initial Wealth	W/Y Ratio	Initial W/Y Ratio
Male Offspring	0 to 25	\$176,684	\$125,710	\$105,518	0.436	0.476	\$119,029	\$9,842	\$13,032	0.101	0.112
	26 to 75	\$185,259	\$158,623	\$172,356	1.341	1.071	\$150,289	\$37,457	\$31,022	0.263	0.224
	76 to 100	\$301,782	\$333,120	\$189,348	10.195	1.268	\$165,628	\$63,922	\$49,613	0.359	0.258
Female Offspring	0 to 25	\$151,900	\$59,676	\$57,046	0.709	0.640	\$139,965	\$19,684	\$17,686	0.138	0.142
	26 to 75	\$176,050	\$141,483	\$137,240	4.625	2.698	\$144,561	\$36,465	\$32,175	0.224	0.216
	76 to 100	\$180,736	\$137,967	\$134,151	0.820	0.911	\$160,228	\$33,033	\$30,717	0.235	0.194

Source: Authors' estimates from the PSID, offspring of attitudes sample.Rankings by sum of parent's effects.

	Outcome: Ever Smoked Cigarettes				
	Ma	ales	Females		
	(1)	(2)	(3)	(4)	
Own attitude index		-0.630***		-0.510***	
		(0.093)		(0.101)	
Predicted education	0.117	0.247	-1.157***	-1.165***	
	(0.192)	(0.193)	(0.234)	(0.234)	
(Predicted education) <sup>2</sup>	-0.006	-0.010	0.040***	0.040***	
	(0.007)	(0.007)	(0.009)	(0.009)	
Black	-0.093	-0.091	-0.258***	-0.251***	
	(0.065)	(0.066)	(0.051)	(0.051)	
Parents poor	0.188***	0.180***	-0.124***	-0.127***	
	(0.026)	(0.026)	(0.023)	(0.023)	

Source: Authors' estimates from the PSID, attitudes sample.

### Estimates: Age at First Birth, Offspring Sample

	Outcome: Age First Child Born				
	Men		Wo	men	
	(1)	(2)	(3)	(4)	
Father's attitude index		-1.253		-1.658***	
		(0.621)		(0.566)	
Mother's attitude index		-2.912***		8.419***	
		(0.875)		(0.737)	
Predicted education	8.123***	7.496***	4.684***	4.234***	
	(1.364)	(1.361)	(1.291)	(1.295)	
(Predicted education) <sup>2</sup>	-23.679***	-21.114***	-8.877**	-7.510*	
	(4.826)	(4.817)	(4.503)	(4.517)	
Birth year	0.085***	0.092***	0.016*	0.008	
	(0.009)	(0.009)	(0.009)	(0.009)	
(Birth year) <sup>2</sup>	0.000	0.000	0.000	0.000	
	(.)	(.)	(.)	(.)	
Black	-2.297***	-2.215***	-2.568***	-3.008***	
	(0.339)	(0.338)	(0.304)	(0.306)	
Parents poor	-0.527***	-0.522***	-0.771***	-0.825***	
	(0.174)	(0.173)	(0.161)	(0.161)	
Observations	580	575	562	558	
R <sup>2</sup>	0.128	0.136	0.209	0.220	

Source: Authors' estimates from the PSID, Offspring sample.

### Estimates: Divorce, Offspring Sample

	Outcome: Whether Divorced				
	Men		Wo	men	
	(1)	(2)	(3)	(4)	
Age at first marriage	-0.070***	-0.070***	-0.080***	-0.078***	
	(0.003)	(0.003)	(0.003)	(0.003)	
Father's attitude index		-0.660***		-0.140	
		(0.162)		(0.175)	
Mother's attitude index		-0.303		-0.256	
		(0.224)		(0.231)	
Predicted education	0.501	0.543	-1.300***	-1.176***	
	(0.338)	(0.338)	(0.436)	(0.436)	
(Predicted education) <sup>2</sup>	-1.274	-1.317	5.058***	4.610***	
	(1.196)	(1.198)	(1.513)	(1.514)	
Birth year	0.000	-0.002	0.037***	0.036***	
	(0.003)	(0.003)	(0.004)	(0.004)	
(Birth year) <sup>2</sup>	-0.005	0.006	-0.160***	-0.154***	
	(0.014)	(0.014)	(0.016)	(0.016)	
Black	0.012	0.053	-0.122	-0.121	
	(0.089)	(0.090)	(0.096)	(0.096)	
Parents poor	0.189***	0.265***	0.088*	0.083	
	(0.046)	(0.048)	(0.052)	(0.052)	

#### Source: Authors' estimates from the PSID, Offspring sample.