SIBLING INFLUENCE ON THE HUMAN CAPITAL OF THE LEFT BEHIND

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Introduction

- Growing literature on the effects of parental migration on the educational outcomes of the children left behind
- Context: mass rural-to-urban migration in China
- Urban migration often produces remittances which might be invested in children education
- On the other hand, absence of parents can have detrimental effect on children outcomes

This paper: The Role of Sibling Influence?

- Siblings' correlations education/income capture "nature" vs "nurture" effects within household, common environments as well as the influence of one sibling on another (Black et al 2011)
- We study older sibling influence on the educational attainment of younger children left-behind

In China:

- Ancient Confucian code: "Fathers should be kind to their children, and sons should be obedient to their parents, and older brothers should love their younger siblings, and younger brothers should respect their older ones"
- Brothers: parental authority; sisters: caretaker. How these affect cognitive development is an empirical question

Preview of results

- Document the existence of sizable siblings influence on the educational attainment of children
- Effects are amplified among children left-behind, mainly in terms of language ability acquisition
- The positive influence of the older sibling is compensating the negative effects of being left behind
- It is primarily older sisters who exhibit positive influence on the performance of their younger siblings

Econometric specification

We estimate the following specification by OLS and fixed effects:

$$Score_{ijt}^{Y} = \beta_0 + \beta_1 \text{Score}_{ijt}^{O} + \beta_2 \text{Left-Behind}_{jt} + \gamma(\text{Score}_{ijt}^{O} \times \text{Left-Behind}_{jt}) + \beta_3 X_{ijt}^{Y} + \beta_4 W_{jt} + \eta_t + c_i + \epsilon_{ijt}.$$

- Y represents young children in the family; O indicates the oldest child
- $Score_{ijt}^{Y}$ captures the score in Chinese or Math for the young child i, in family j, in year t
- Left-Behind_{ijt} equals one if at least one of the parents has migrated for at least a month in the previous year
- Score_{ijt}^{O} measures the older siblings grade
- β_1 captures the sibling correlation between scores
- $(\text{Score}_{ijt}^{O} \times \text{Left-Behind}_{ijt})$ is the key variable, and measures the additional sibling influence if the children are left behind

Threats to causality

- Reverse causality between scores and migration
- Omitted variables: individual ability, household attributes, environmental factors
- Self-selection

Fixed effect analysis and robustness/sensitivty tests

Data and sample

- Second and third waves (2009 and 2010) of the Rural Household Survey, part of the Rural Urban Migration in China (RUMiC) dataset
- Rural individuals are sampled from villages in the major sending provinces of migrants. Very low attrition
- Info on Chinese and Math scores from last semester. Scores standardized by the highest "achievable score"
- Keep children who have an older sibling and whose parent/guardian report scores
- 337 children observed in two waves, balanced panel

Average Characteristics of Non-Migrant and Left-behind Children, by Birth Order.

	Left-behind		Non-Migrant	
	Younger Siblings	Oldest Sibling	Younger Siblings	Oldest Sibling
Male (D)	0.635	0.404	0.547	0.324
	(0.482)	(0.492)	(0.498)	(0.469)
Age	10.914	14.074	11.073	14.806
	(2.756)	(2.389)	(2.592)	(2.057)
Number of siblings	2.434	2.296	2.595	2.406
	(0.648)	(0.564)	(0.882)	(0.755)
Age at entry	6.590	6.626	6.735	6.755
	(0.740)	(0.730)	(0.790)	(0.876)
Boarding school	0.258	0.434	0.251	0.521
	(0.439)	(0.497)	(0.434)	(0.500)
High quality school	0.180	0.212	0.235	0.321
	(0.385)	(0.410)	(0.424)	(0.468)
Grade	4.709	7.547	4.972	8.406
	(2.413)	(2.977)	(2.806)	(3.574)
Observations	244	203	430	355

Standard deviations in parentheses

Average Test Scores of Non-Migrant and Left-behind Children, by Birth Order.

	Left-behind		Non-Migrant	
	Younger Siblings	Oldest Sibling	Younger Siblings	Oldest Sibling
Chinese score	0.790	0.783	0.803	0.784
	(0.128)	(0.128)	(0.112)	(0.124)
Sibling's Chinese score	0.772	0.805	0.778	0.795
	(0.131)	(0.128)	(0.141)	(0.124)
Math score	0.810	0.805	0.810	0.795
	(0.128)	(0.129)	(0.122)	(0.130)
Sibling's Math score	0.792	0.783	0.770	0.784
	(0.131)	(0.129)	(0.131)	(0.130)
Observations	244	203	430	355

Standard deviations in parentheses

Outline of results

- OLS
- Fixed effects
- Heterogeneity: gender (age distance, grade, migration history, parental education in Appendix)
- Robustness tests

Performance in Chinese, OLS results

	I	II	III	IV	V	VI
Score^{O}_{ijt}	0.461***		0.461***	0.382***	0.378***	0.382***
	(0.061)		(0.060)	(0.067)	(0.063)	(0.066)
Left-Behind$_{ijt}$ (D)		–0.018*	–0.016**	–0.180**	–0.192**	–0.183**
		(0.009)	(0.008)	(0.082)	(0.083)	(0.085)
Left-Behind$_{ijt}\times$ Score^{O}_{ijt}				0.212**	0.215**	0.205*
				(0.102)	(0.103)	(0.106)
Male (D)	0.002	–0.000	0.003	0.003	0.000	0.001
	(0.007)	(0.009)	(0.007)	(0.007)	(0.007)	(0.007)
Age	–0.004	–0.007**	–0.004	–0.004	–0.004**	–0.005**
	(0.002)	(0.003)	(0.002)	(0.002)	(0.002)	(0.002)
Number of siblings	–0.008	–0.020***	–0.009*	–0.010*	–0.012**	–0.008
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.006)
Age at entry	–0.003	–0.011*	–0.004	–0.005	–0.007	–0.007
	(0.006)	(0.007)	(0.006)	(0.006)	(0.006)	(0.007)
Boarding school	0.004	0.007	0.004	0.003	0.006	0.009
	(0.008)	(0.010)	(0.008)	(0.008)	(0.008)	(0.009)
High quality school	0.028***	0.045***	0.026***	0.025***	0.020**	0.014*
	(0.009)	(0.010)	(0.009)	(0.009)	(0.009)	(0.009)
Grade	0.000	–0.000	–0.000	–0.000	0.000	0.002
	(0.002)	(0.003)	(0.002)	(0.002)	(0.002)	(0.002)
Year	0.003	0.018**	0.004	0.003	0.003	0.002
	(0.007)	(0.009)	(0.007)	(0.007)	(0.007)	(0.007)
Parents controls	N	N	N	N	Y	Y
Household controls	N	N	N	N	Y	Y
Village controls	N	N	N	N	N	Y
R^2	0.33	0.10	0.33	0.35	0.36	0.39
N	674	674	674	674	674	674

Robust standard errors in parentheses. Col VI also include province dummies.

Performance in Math, OLS results

	I	II	III	IV	V	VI
Score^{O}_{ijt}	0.424***		0.425***	0.376***	0.372***	0.371***
	(0.039)		(0.039)	(0.047)	(0.047)	(0.047)
Left-Behind$_{ijt}$ (D)		–0.006	–0.008	–0.123**	–0.124**	–0.122**
		(0.010)	(0.008)	(0.060)	(0.061)	(0.062)
Left-Behind$_{ijt}\times$ Score^{O}_{ijt}				0.144**	0.139*	0.139*
				(0.072)	(0.074)	(0.074)
Male (D)	0.012	0.011	0.013	0.013*	0.012	0.013
	(0.008)	(0.009)	(0.008)	(0.008)	(0.008)	(0.008)
Age	–0.003	–0.005	–0.003	–0.003	–0.003	–0.004
	(0.002)	(0.003)	(0.002)	(0.002)	(0.002)	(0.003)
Number of siblings	–0.011**	–0.024***	–0.011**	–0.012**	–0.014***	–0.012*
	(0.005)	(0.006)	(0.005)	(0.005)	(0.005)	(0.006)
Age at entry	–0.006	–0.015**	–0.006	–0.007	–0.008	–0.007
	(0.006)	(0.007)	(0.006)	(0.006)	(0.006)	(0.007)
Boarding school	–0.003	0.006	–0.003	–0.004	–0.002	0.004
	(0.009)	(0.011)	(0.009)	(0.009)	(0.009)	(0.010)
High quality school	0.041***	0.058***	0.040***	0.039***	0.038***	0.031***
	(0.009)	(0.010)	(0.009)	(0.009)	(0.009)	(0.009)
Grade	0.001	–0.000	0.001	0.001	0.001	0.002
	(0.002)	(0.003)	(0.002)	(0.002)	(0.002)	(0.002)
Year	0.003	0.009	0.004	0.003	0.003	0.001
	(0.008)	(0.009)	(0.008)	(0.008)	(0.008)	(0.008)
Parents controls	N	N	N	N	Y	Y
Household controls	N	N	N	N	Y	Y
Village controls	N	N	N	N	N	Y
R^2	0.31	0.11	0.31	0.31	0.32	0.35
N	674	674	674	674	674	674

Robust standard errors in parentheses. Col VI also include province dummies.

Performance in Chinese and Math, fixed effects results

	Chinese Scores			Math Scores		
Score^{O}_{ijt}	0.223**	0.217**	0.219***	0.256***	0.244***	0.253***
	(0.089)	(0.085)	(0.084)	(0.076)	(0.076)	(0.077)
Left-Behind_{ijt} (D)	–0.353***	–0.366***	–0.360***	–0.114	–0.126	–0.118
	(0.120)	(0.120)	(0.121)	(0.100)	(0.103)	(0.104)
$\text{Left-Behind}_{ijt} \times \text{Score}^{O}_{ijt}$	0.437***	0.447***	0.443***	0.112	0.117	0.108
	(0.152)	(0.151)	(0.152)	(0.115)	(0.118)	(0.118)
Boarding school	0.005	0.004	0.003	0.000	–0.002	–0.001
	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)
High quality school	0.010	0.013	0.009	0.019	0.020	0.019
	(0.014)	(0.014)	(0.015)	(0.016)	(0.016)	(0.017)
Grade	–0.003	–0.003	–0.003	–0.000	0.001	0.000
	(0.003)	(0.003)	(0.003)	(0.004)	(0.004)	(0.004)
Year	0.003	0.003	0.002	0.003	0.003	0.003
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
Parents controls	N	Y	Y	N	Y	Y
Household controls	N	Y	Y	N	Y	Y
Village controls	N	N	Y	N	N	Y
R^2	0.24	0.25	0.26	0.14	0.16	0.16
N	674	674	674	674	674	674

Robust standard errors in parentheses. Col III and VI also include province dummies.

Baseline Results

OLS and Fixed Effects:

- High correlation between the older and the youngest children's grade.
- On average the absence of at least a parent does not seem to have a large effect on children performance in school.
- Sibling influence in left behind households is stronger as sibling correlations are higher than in non-left behind households.

. . . . . What about "gender roles"?

Performance in Chinese and Math, fixed effects - by gender of younger child

	Chinese Sc. - Males	Chinese Sc. - Females	Math Sc. - Males	Math Sc. - Females
Score^{O}_{ijt}	0.093	0.374***	0.252**	0.260***
	(0.106)	(0.093)	(0.126)	(0.097)
Left-Behind_{ijt} (D)	–0.472***	–0.215	–0.097	–0.187
	(0.153)	(0.133)	(0.137)	(0.139)
$\text{Left-Behind}_{ijt} \times \text{Score}^{O}_{ijt}$	0.642***	0.206	0.101	0.162
	(0.198)	(0.154)	(0.161)	(0.161)
R^2	0.31	0.27	0.24	0.17
N	390	284	390	284

Robust standard errors in parentheses. All specifications include the covariates in column III and VI in Table 13.

Performance in Chinese and Math, fixed effects - by gender of the oldest child

	Chinese Sc. - Males	Chinese Sc. - Females	Math Sc. - Males	Math Sc. - Females
Score^{O}_{ijt}	0.425***	0.100	0.386***	0.174
	(0.083)	(0.103)	(0.081)	(0.112)
Left-Behind_{ijt} (D)	–0.039	–0.492***	0.082	–0.227
	(0.117)	(0.144)	(0.129)	(0.147)
$\text{Left-Behind}_{ijt} \times \text{Score}^{O}_{ijt}$	0.004	0.621***	–0.120	0.240
	(0.143)	(0.176)	(0.153)	(0.162)
R^2	0.28	0.31	0.32	0.21
N	237	437	237	437

Robust standard errors in parentheses. All specifications include the covariates in column III and VI in Table 13.

Performance in Chinese, fixed effects - by sex of sibling pairs

	Male(Y)-Male(O)	Male(Y)-Female(O)	Female(Y)-Male(O)	Female(Y)-Female(O)
Score^{O}_{ijt}	0.266**	0.016	0.526***	0.240
	(0.104)	(0.128)	(0.143)	(0.155)
Left-Behind_{ijt} (D)	–0.121	–0.556***	0.122	–0.486***
	(0.173)	(0.174)	(0.206)	(0.179)
$\text{Left-Behind}_{ijt} \times \text{Score}^{O}_{ijt}$	0.113	0.768***	–0.212	0.530**
	(0.240)	(0.221)	(0.236)	(0.205)
R^2	0.38	0.36	0.34	0.38
N	119	271	118	166

Robust standard errors in parentheses. All specifications include the covariates in column III and VI in Table 13.

Performance in Math, fixed effects - by sex of sibling pairs

	Male(Y)-Male(O)	Male(Y)-Female(O)	Female(Y)-Male(O)	Female(Y)-Female(O)
Score^{O}_{ijt}	0.395***	0.205	0.409***	0.100
	(0.143)	(0.191)	(0.121)	(0.119)
Left-Behind_{ijt} (D)	0.211	–0.209	0.106	–0.401*
	(0.187)	(0.199)	(0.166)	(0.228)
$\text{Left-Behind}_{ijt} \times \text{Score}^{O}_{ijt}$	–0.277	0.237	–0.182	0.390
	(0.231)	(0.234)	(0.197)	(0.257)
R^2	0.34	0.30	0.40	0.28
N	119	271	118	166

Robust standard errors in parentheses. All specifications include the covariates in column III and VI in Table 13.

Brothers: parental authority; sisters: caretaker

OLS and Fixed Effects:

- Correlations between older brothers and younger siblings is not statistically different in the left-behind group, independently on the sex of the younger siblings. Brothers do not provide nurturing effects.
- Correlations between older sisters and younger siblings matter only in the left behind sample, with such influence balancing out the negative effects of being left behind.
- The nurturing effects matter primarily for the acquisition of language ability.

Threats to causality

Time-varying unobserved heterogeneity that might be related to:

- Reverse causality between scores and migration
- Omitted variables: time-varying individual ability, household attributes, environmental factors
- Self-selection

Three checks:

- Do scores predict migration?
- Perspective migration
- Assume exogeneity of the timing of migration and focus on left behind only

Econometric issues

Do scores predict migration?

$$Prob(\text{Left-Behind}_{ijt}) = \beta_0 + \beta_1 \text{Score}^O_{ijt} + \beta_2 \text{Score}^Y_{ijt} + \beta_3 Y_{ijt} + \beta_3 X^Y_{ijt} + \beta_4 W_{jt} + \eta_t + c_i + \epsilon_{ijt}$$

Can perspective migration say something about causality?

$$Score^Y_{ijt} = \beta_0 + \beta_1 \text{Score}^O_{ijt} + \beta_2 \text{Left-Behind}_{ijt+1} + \gamma(\text{Score}^O_{ijt} \times \text{Left-Behind}_{ijt+1}) + \beta_3 X^Y_{ijt} + \beta_4 W_{jt} + \epsilon_{ijt}$$

Baseline fixed effect model on the left behind only

$$Score^Y_{ijt} = \beta_0 + \beta_1 \text{Score}^O_{ijt} + \beta_2 \text{Left-Behind}_{ijt} + \gamma(\text{Score}^O_{ijt} \times \text{Left-Behind}_{ijt}) + \beta_3 X^Y_{ijt} + \beta_4 W_{jt} + \epsilon_{ijt}$$

Probability of Being Left Behind and School Performance, OLS, FE, Perspective Migrants

	OLS Ch	OLS Ma	FE Ch	FE Ma	Perspective Mig - Ch	Perspective Mig - Ma
Own score	–0.511***	–0.230	–0.115	–0.257	–0.435*	–0.047
	(0.171)	(0.160)	(0.155)	(0.192)	(0.231)	(0.228)
Score_{ijt}^{O}	0.216	0.144	–0.066	–0.013	0.295	0.194
	(0.160)	(0.150)	(0.131)	(0.109)	(0.212)	(0.216)
R^2	0.27	0.26	0.09	0.10	0.22	0.21
N	674	674	674	674	337	337

Robust standard errors in parentheses. All specifications include the covariates in column III and VI in Table 13.

Performance in Chinese and Math, Perspective Migrants

	Chinese	Chinese	Chinese	Math	Math	Math
Score^{O}_{ijt}	0.320***	0.336***	0.338***	0.394***	0.397***	0.401***
	(0.091)	(0.084)	(0.086)	(0.069)	(0.070)	(0.070)
$\text{Left-Behind}_{ijt+1}$ (D)	–0.252**	–0.252**	–0.249**	–0.081	–0.077	–0.060
	(0.112)	(0.114)	(0.112)	(0.080)	(0.082)	(0.082)
$\text{Left-Behind}_{ijt+1} \times \text{Score}^{O}_{ijt}$	0.306**	0.296**	0.302**	0.101	0.087	0.069
	(0.140)	(0.143)	(0.142)	(0.096)	(0.099)	(0.098)
Male (D)	–0.001	–0.002	–0.003	0.009	0.009	0.009
	(0.011)	(0.011)	(0.011)	(0.012)	(0.012)	(0.012)
Age	0.001	–0.001	–0.002	0.001	0.001	0.001
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Number of siblings	–0.013	–0.012	–0.014	–0.015*	–0.016**	–0.017**
	(0.008)	(0.008)	(0.009)	(0.008)	(0.008)	(0.009)
Age at entry	–0.020**	–0.023**	–0.030***	–0.016*	–0.019**	–0.023**
	(0.009)	(0.009)	(0.010)	(0.009)	(0.009)	(0.011)
Boarding school	0.022*	0.026**	0.034***	0.008	0.007	0.016
	(0.012)	(0.013)	(0.013)	(0.014)	(0.014)	(0.015)
High quality school	0.018	0.015	0.010	0.043***	0.043***	0.039***
	(0.012)	(0.012)	(0.012)	(0.013)	(0.013)	(0.014)
Grade	–0.002	–0.002	–0.000	0.001	0.001	0.001
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Parents controls	N	Y	Y	N	Y	Y
Household controls	N	Y	Y	N	Y	Y
Village controls	N	N	Y	N	N	Y
R^2	0.36	0.39	0.44	0.33	0.33	0.37
N	337	337	337	337	337	337

Robust standard errors in parentheses. Col VI also include province dummies.

Performance in Chinese and Math, Left Behind Only

	OLS Ch	OLS Ma
Score^{O}_{ijt}	0.478***	0.522***
	(0.120)	(0.099)
Left-Behind_{ijt} (D)	–0.114	–0.004
	(0.109)	(0.092)
$\text{Left-Behind}_{ijt} \times \text{Score}^{O}_{ijt}$	0.148	0.013
	(0.141)	(0.117)
R^2	0.48	0.39
N	300	300

Robust standard errors in parentheses. All specifications include the covariates in column III and VI in Table 13.

Econometric issues

Do scores predict migration? No.

Can perspective migration say something about causality? Results hold.

Left behind only: Similar pattern (albeit not significant)

Conclusions

We have highlighted the importance of siblings influence among the left-behind:

- Consistent evidence that older siblings "influence" cognitive development of younger children in Chinese and in Math
- BUT effects are stronger among children left-behind, mainly in the acquisition of their language ability.
- Here the positive influence of the older sibling compensates the negative effects of being left behind

Conclusions

- Parental migration triggers changes in siblings effects
- Primarily changes occur through the "nurturing" role of older sisters who substitute parents in caregiving activities of younger siblings
- Importance of peer effects to smooth across households negative impacts of migration on low ability children

Appendix

Performance in Chinese and Math, fixed effects - by grade

	Chinese Sc. - $\leq$Gr.3	Chinese Sc. - $>$Gr.3	Math Sc. - $\leq$Gr.3	Math Sc. - $>$Gr.3
Score^{O}_{ijt}	–0.055	0.284***	–0.002	0.304***
	(0.242)	(0.099)	(0.156)	(0.092)
Left-Behind_{ijt} (D)	–0.187	–0.387**	–0.041	–0.077
	(0.235)	(0.149)	(0.189)	(0.112)
$\text{Left-Behind}_{ijt} \times \text{Score}^{O}_{ijt}$	0.209	0.502***	0.048	0.068
	(0.290)	(0.189)	(0.221)	(0.138)
R^2	0.24	0.38	0.19	0.22
N	228	446	228	446

Robust standard errors in parentheses. All specifications include the covariates in column III and VI in Table 13.

Performance in Chinese and Math, fixed effects - by Age Distance

	Chinese Sc. - Age D.$\leq$5	Chinese Sc. - Age D.$>$5	Math Sc. - Age D.$\leq$5	Math Sc. -
Score^{O}_{ijt}	0.245**	0.108	0.294***	0.081
	(0.108)	(0.085)	(0.106)	(0.088)
Left-Behind_{ijt} (D)	–0.334***	–0.505**	–0.041	–0.406**
	(0.106)	(0.240)	(0.121)	(0.186)
$\text{Left-Behind}_{ijt} \times \text{Score}^{O}_{ijt}$	0.398***	0.637**	0.028	0.423**
	(0.133)	(0.303)	(0.146)	(0.198)
R^2	0.25	0.49	0.17	0.45
N	512	162	512	162

Robust standard errors in parentheses. All specifications include the covariates in column III and VI in Table 13.

Performance in Chinese and Math, fixed effects - by migration history

	Migrated before	Did not Migrate before	Migrated before	Did not Migrate before
Score^{O}_{ijt}	0.196**	0.281	0.232***	0.368**
	(0.086)	(0.214)	(0.084)	(0.165)
Left-Behind_{ijt} (D)	–0.189	–0.474**	–0.107	–0.108
	(0.116)	(0.198)	(0.146)	(0.166)
$\text{Left-Behind}_{ijt} \times \text{Score}^{O}_{ijt}$	0.235	0.535**	0.119	0.035
	(0.149)	(0.239)	(0.168)	(0.187)
R^2	0.13	0.55	0.14	0.45
N	500	174	500	174

Robust standard errors in parentheses. All specifications include the covariates in column III and VI in Table 13.

Comparison OLS-FE Models, Chinese Performance

	OLS-I	FE-I	OLS-II	FE-II	OLS-III	FE-III
Score^{O}_{ijt}	0.457***	0.374***			0.382***	0.219***
	(0.061)	(0.105)			(0.066)	(0.084)
Left-Behind_{ijt} (D)			–0.028***	–0.021	–0.183**	–0.360***
			(0.010)	(0.021)	(0.085)	(0.121)
$\text{Left-Behind}_{ijt} \times \text{Score}^{O}_{ijt}$					0.205*	0.443***
					(0.106)	(0.152)
R^2	0.37	0.20	0.16	0.04	0.39	0.26
N	674	674	674	674	674	674

Robust standard errors in parentheses. All specifications include the covariates in column III and VI in Table 13.

Comparison OLS-FE Models, Math Performance

	OLS-I	FE-I	OLS-II	FE-II	OLS-III	FE-III
Score^{O}_{ijt}	0.354***	0.287***			0.371***	0.253***
	(0.053)	(0.065)			(0.047)	(0.077)
Left-Behind_{ijt} (D)			–0.011	–0.036	–0.122**	–0.118
			(0.011)	(0.026)	(0.062)	(0.104)
$\text{Left-Behind}_{ijt} \times \text{Score}^{O}_{ijt}$					0.139*	0.108
					(0.074)	(0.118)
R^2	0.29	0.15	0.17	0.05	0.35	0.16
N	674	674	674	674	674	674

Robust standard errors in parentheses. All specifications include the covariates in column III and VI in Table 13.

Performance in Chinese and Math, fixed effects - by education of father

	Father HE - Ch	Father LE - Ch	Father HE - Ma	Father LE - Ma
Score^{O}_{ijt}	0.264***	0.004	0.271***	0.150
	(0.091)	(0.227)	(0.083)	(0.166)
Left-Behind_{ijt} (D)	–0.309*	–0.545***	–0.058	–0.452*
	(0.169)	(0.194)	(0.102)	(0.245)
$\text{Left-Behind}_{ijt} \times \text{Score}^{O}_{ijt}$	0.377*	0.674***	0.006	0.583**
	(0.210)	(0.240)	(0.122)	(0.281)
R^2	0.27	0.26	0.19	0.30
N	473	201	473	201

Robust standard errors in parentheses. All specifications include the covariates in column III and VI in Table 13.

Performance in Chinese and Math, fixed effects - by education of mother

	Mother HE - Ch	Mother LE - Ch	Mother HE - Ma	Mother LE - Ma
Score^{O}_{ijt}	0.146*	0.314**	0.259***	0.258*
	(0.082)	(0.153)	(0.086)	(0.152)
Left-Behind_{ijt} (D)	–0.410**	–0.295**	–0.063	–0.177
	(0.159)	(0.147)	(0.121)	(0.179)
$\text{Left-Behind}_{ijt} \times \text{Score}^{O}_{ijt}$	0.543***	0.312*	0.050	0.159
	(0.199)	(0.182)	(0.138)	(0.207)
R^2	0.32	0.29	0.19	0.19
N	374	300	374	300

Robust standard errors in parentheses. All specifications include the covariates in column III and VI in Table 13.