

Web Appendix for

Long-Term Orientation and Educational Performance

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A1. Introduction

This appendix accompanies “Long Term Orientation and Educational Performance” by David Figlio, Paola Giuliano, Umut Ozek, and Paola Sapienza. Section A2 provides further details of the data used in the paper, as well as the definition of variables. Section A3 reports additional figures and tables that were discussed in the body of the paper, but not reported there explicitly. Section A4 discusses the existence of within-country selection along Long-Term Orientation.

A2. Data and their sources

In this section we describe in more details of some of the variables used in the analysis. We also describe some additional technical details to understand the construction of the data and the regression analysis.

A.2.1. Long-Term Orientation

Hofstede et al. (2010) constructed the measure of Long-Term Orientation through a factor analysis of the following variables, taken from the WVS (latest data available for each country in the 1995-2004 period): 1. Thrift as a desirable trait for children (percentage of people in a country choosing “thrift” as one of the answers to the question: “Here is a list of qualities that children can be encouraged to learn at home. Which, if any, do you consider to be especially important? Please choose up to five.” The list included: independence, hard work, feeling of responsibility, imagination, tolerance and respect for other people, thrift (saving money and things), determination (perseverance), religious faith, unselfishness, obedience.) 2. National pride (percentage of people in a country choosing “very proud” as answer to the following question: “How proud are you to be - name of your nationality-?” Possible answers included: “very proud,” “quite proud,” “not very proud,” “not at all proud”) 3. Importance of service to others (percentage of people in each country choosing “very important” as answer to the following question: “For each of the following, indicate how important it is in your life—very important, rather important, not very important, or not at all important: family, friends, leisure time, politics, work, religion, service to others.”¹ We downloaded the actual variable from the website www.geerthofstede.nl/dimension-data-matrix in the spreadsheet “Six dimensions for website.xls (version 2015 12 08)” with the addition of the data “NonOfficial VSM08 scores” for Nepal and Sri Lanka, for which we take the value corresponding to “Sri Lanka-

¹ Because service to others had some missing values, linear regression on the two other variables was used to predict the missing factor scores.

General population." The Long-Term Orientation variable ranges from 0 to 100. In our data it was rescaled as a 0-1 variable.

A.2.2. Description of variables for the Florida analysis

<i>Dependent variables</i>		
<i>Name of the variable</i>	<i>Description</i>	<i>Source (and when possible and useful name of the raw variable)</i>
Math score	Development scale score in the Mathematics section of the FCAT. We standardize the statewide test scores to zero mean and unit variance at the grade/year level based on the sub-sample used in each regression/specification.	Source: FLDOE Created using raw variables: DEV_SCALE_SCORE, SUBTEST_ID, TEST_GRADE_LEVEL, CURRENT_ACADEMIC_YEAR
Math score, change 3 rd to 8 th	Difference between the standardized math score in grade 8 and the standardized math score in grade 3. The standardization is done within each sample by subtracting the mean test score in the sample (for each grade) and by dividing them by the sample standard deviation.	Source: FLDOE Created using raw variables: DEV_SCALE_SCORE, SUBTEST_ID, TEST_GRADE_LEVEL, CURRENT_ACADEMIC_YEAR
Reading score	Development scale score in the Reading section of the FCAT. We standardize the statewide test scores to zero mean and unit variance at the grade/year level based on the sub-sample used in each regression/specification.	Source: FLDOE Created using raw variables: DEV_SCALE_SCORE, SUBTEST_ID, TEST_GRADE_LEVEL, CURRENT_ACADEMIC_YEAR
Reading score, change 3 rd to 8 th	Difference between the standardized reading score in grade 8 and the standardized reading score in grade 3. The standardization is done within each sample by subtracting the mean test score in the sample (for each grade) and by dividing them by the sample standard deviation.	Source: FLDOE Created using raw variables: DEV_SCALE_SCORE, SUBTEST_ID, TEST_GRADE_LEVEL, CURRENT_ACADEMIC_YEAR
Graduation	Dummy variable equal to 1 if a student obtained a standard diploma within 4 years after entering grade 9 for the first time.	Source: FLDOE Created using raw variables: ENROLLMENT_YEAR, WITHDRAWAL_REASON_CD, GRADE_LVL_ID
% Absent Days	Percentage of absent days during the year calculated as a fraction of absent days over the sum of absent and present days.	Source: FLDOE Created using raw variables: ABSENT_DAYS_NBR, PRESENT_DAYS_NBR
Disciplinary Incident	Dummy variable equal to 1 if the student was involved in a disciplinary incident during the year, equal to 0 if s/he was not involved in any disciplinary incident. A disciplinary incident is a serious offense that usually results in suspension.	Source: FLDOE Created using raw variables: STUDENT_REFERRAL_ACTION_CD

Retention	Dummy variable equal to 1 in year t if the student attends the same grade in year t and in year $t+1$, and equal to 0 if the student attends a higher grade in year $t+1$.	Source: FLDOE Created using raw variables: ENROLLMENT_YEAR, GRADE_LVL_ID
Gifted in grade 4	Dummy variable equal to 1 if the student is classified as gifted in grade 4 and zero otherwise.	Source: FLDOE Created using raw variables: PRIMARY_EXCPT_IND
School letter score at year $t-1$	School letter scores are recoded into a numerical scale ranging from 1 to 5, where a letter grade of "F" corresponds to 1, "D" corresponds to 2, "C" corresponds to 3, "B" corresponds to 4, "A" corresponds to 5. We assign to each school the score it earned in year $t-1$, that is the year before the student attends the school. Source: http://schoolgrades.fldoe.org (we took the information from the 2013-2014 School Grades spreadsheet)	Source: FLDOE Created using raw variables: School grade variable in the 2013-14 school grades spreadsheet.
Fraction of advanced classes	Number of IB, AICE or AP classes taken during the academic year over the total number of classes taken. Advanced classes are identified using FLDOE's course code directory for each school year (http://www.fldoe.org/policy/articulation/ccd).	Source: FLDOE Created using raw variables: COURSE_NUMBER
Fraction of advanced classes (scientific subjects)	Number of IB, AICE or AP classes taken during the academic year in Math, Computer Science, or Natural Sciences over the total number of classes taken. More specifically, "Scientific advanced classes" are all those classes whose course numbers are between 200000-300000 (Computer Science), 1200000-1300000 (Mathematics) or 2000000-2100000 (Sciences: Biology, Environmental Sciences, Chemistry, Physics and Design Technology). Source: http://www.fldoe.org/policy/articulation/ccd/arc_hive/2005-2006-course-directory.shtml	Source: FLDOE Created using raw variables: COURSE_NUMBER
Individual controls		
<i>Name of the variable</i>	<i>Description</i>	<i>Source</i>
Age in months	Assuming the school year starts on Sep 1st, the variable is calculated as: Academic year*12+8-Student year of birth*12-student month of birth.	Source: FLDOE Created using raw variables: STUDENT_BIRTH_MONTH, STUDENT_BIRTH_YEAR, ENROLLMENT_YEAR
Male	A dummy for whether the student is a boy.	Source: FLDOE Created using raw variables: GENDER_CD
Free or Reduced Priced Lunch	A dummy equal to 1 if the student/year is eligible for free lunch, reduced-price lunch or attends a "provision 2" school and zero otherwise (either	Source: FLDOE Created using raw variables: LUNCH_STATUS

	the student did not apply or he/she applied but she/he was not eligible).	
Enrolled in Limited English proficiency program	A dummy variable equal to 1 if the student is enrolled in a limited English proficiency program and zero otherwise.	Source: FLDOE Created using raw variables: LIMITED_ENGLISH_PROFIENCY_CD
Special Education	A dummy variable equal to 1 if the variable if the student has special education needs and zero otherwise. Gifted students are classified as zero.	Source: FLDOE Created using raw variables: PRIMARY_EXCPT_IND
Mother's educational dummies	We define three dummies for the maternal level of education: high school graduate (years of education is equal to 12), some college (years of education greater than 12 and strictly smaller than 16) and college graduate (years of education greater or equal than 16). The mother's years of education variable is taken from the birth certificates.	Source: birth certificate
Mother teen pregnancy	A dummy equal to 1 if mother's age at time of birth is smaller or equal than 16 years, equal to 0 if it is greater than 16 years. Mother's age at time of birth is constructed starting from mother's month and year of birth (both provided in the birth certificate) and children's month and year of birth (provided by FLDOE). Mother's age is set to missing if it is less than 12 or greater than 50. This variable is obtained from the birth certificates.	Source: birth certificate
Mother married at time of birth	A dummy variable equal to 1 if the mother is married at time of giving birth.	Source: birth certificate
Number of older siblings	The number of older siblings. This variable is obtained from the birth certificates.	Source: birth certificate
Median income in zip code of birth, (100,000 of \$)	We match the zip code at time of birth (provided by the birth certificates) with zip code income in 1999, obtained from the Census bureau.	Source: birth certificate and Census
Fraction speaking the same language (log)	Number of students who speak the same language of the student over total number of students in the school she/he attends, in the given year, multiplied by 100, of which we then computed the logarithm.	Source: FLDOE Created using raw variables: LANGUAGE_HAVE_PARENTS_SPEAKING, INSTITUTION_ID, ENROLLMENT_YEAR
Continent dummies	In Table 10 we pooled together first and extended version of second generation immigrants and test the robustness of the results to the exclusion of the Latin American continent and the Asian continent. Since we merge immigrants using both a definition based on the country of origin and definition based on the language, the continent dummy needs to combine both elements. For first generation the dummy is equal to one if the country belongs to a given continent. As for language, we adopted the following rule: a language is assigned to a given continent	Source: FLDOE Created using raw variables: LANGUAGE_HAVE_PARENTS_SPEAKING, COUNTRY_CD_BORNED_IN

	<p>if among the sample of 1st generation migrants who speak that language (and from which we built the weights), at least 50% come from that specific continent. For instance, in the case of Portuguese, if among the first generation migrants 60% of the Portuguese speakers come from Brazil and 40% come from Portugal, the language-level continent dummy assigned to Portuguese will be "Americas". Note that we define "Latin America" as all countries located in the Americas with the exclusion of Canada and the US.</p>	
Country controls		
<i>Name of the variable</i>	<i>Description</i>	<i>Source</i>
Distance from the US (log)	Log (distance in km) between the most populated city in the country of origin of the immigrant and the most populated city in the United States. For Serbia and Montenegro, we use the value assigned to "Yugoslavia."	Source: http://www.cepii.fr/CEPII/en/bdd_modele/presentation.asp?id=6
Log GDP pc year 2000, ppp	Log per capita GDP (PPP converted relative to the United States, G-K method, at current prices) for the year 2000. We take the logarithm of this value+1.	Source: http://www.rug.nl/research/ggdc/data/pwt/pwt-7.0
Mean PISA score in Math	Mean score in Mathematics (weighted average using population weights of the individual values, calculated as averages of the 5 Plausible Values provided in the dataset). Average across all available years (2003 to 2012) for the given country.	Source: https://www.oecd.org/pisa/
Education selection to Florida, Feliciano (2005)	<p>Calculated as the net difference index used by Feliciano (2005) and proposed by Lieberman (1976). It is a comparative measure of immigrants' and non-immigrants' educational attainment (adjusted for age) along several points of the education distribution (no schooling; primary education; secondary education; tertiary education). For the exact formula see Feliciano (2005). Educational attainment of the migrants is obtained from the Census 2000, looking at 1st generation migrants aged 25 years old or older, who live in Florida, and who migrated to the US at an age equal or higher than 18 years old</p> <p>The educational attainment from the country of origin is taken from Barro-Lee ("Educational Attainment Data For The Population Aged 25 Years And Older) and it is augmented with data for Puerto Rico obtained from UNESCO for year 2012.</p>	Sources: www.ipums.org , http://data.uis.unesco.org ; http://www.barrolee.com

Educational selection, Hanushek et al. (forthcoming)	For each country of origin, Hanushek et al. (forthcoming) calculate the selectivity parameter for school attainment as the percentile p of the home country distribution from which the average immigrants to the US is drawn. For the exact formula see Hanushek et al. (forthcoming)	Source: “Knowledge Capital and Aggregate Income Differences: Development Accounting for U.S. States”, Hanushek et al. (<i>American Economic Journal: Macroeconomics</i> , forthcoming)
Savings over GDP/100	Savings rate/GDP for the year 2000.	Source: http://data.worldbank.org/indicator/NY.GDS.TOTL.ZS
Maximum Crop Yield (Galor)	A historical measure of crop yield constructed based on data from the Global Agro-Ecological Zones (GAEZ) project of the Food and Agriculture Organization (FAO). The measure is constructed under low level of inputs and rain-fed agriculture. For details see Galor et Ozak (2016).	Source: http://ozak.github.io/Caloric-Suitability-Index/ Created using the variable: post1500maximumcalories0mean_aa divided by 1,000
Futureless Language (Chen)	Dummy variable equal to 1 for “futureless” languages (languages that do not require “obligatory use in prediction-based contexts”). We recoded Chen (2013) accordingly.	Source: http://www.anderson.ucla.edu/faculty/keith.chen/datafilm.htm Created using the raw variable: prediction_ftr
Other cultural variables		
Trust	The variable “trust” is constructed using the question A165 from the World Value Survey. The respondent is asked whether “Generally speaking, would you say that most people can be trusted” (coded as 1) or that “you need to be very careful in dealing with people?” (coded as 0). Our variable is the average at the country level of the fraction of people reporting that “most people can be trusted”.	World Values Survey, Waves 1-6.
Hard Work	The variable “hard work” is constructed using the variable E040 from the World Value Survey. The original question asks the respondent to choose, on a scale from 1 to 10, between two opposite statements: “In the long run, hard work usually brings a better life” (taking the value of 1) and “Hard work doesn’t generally bring success – it’s more a matter of luck and connections” (taking value of 10). For ease of interpretation, we recoded the question so that to a higher value is associated with the importance of hard work. We take the average at the country level of the recoded variable.	World Values Survey, Waves 2, 3, 5 and 6.
Individualism	Individualism is defined as a preference for a loosely-knit social framework in which individuals are expected to take care of only themselves and their immediate families. Its opposite, collectivism, represents a preference for a tightly-knit framework	Hofstede (2010)

	in society in which individuals can expect their relatives or members of a particular in-group to look after them in exchange for unquestioning loyalty. A society's position on this dimension is reflected in whether people's self-image is defined in terms of "I" or "we."	
Indulgence/restraint	Indulgence stands for a society that allows relatively free gratification of basic and natural human drives related to enjoying life and having fun. Restraint stands for a society that suppresses gratification of needs and regulates it by means of strict social norms	Hofstede (2010)
Masculinity/femininity	Masculinity represents a preference in society for achievement, heroism, assertiveness and material rewards for success. Society at large is more competitive. Its opposite, femininity, stands for a preference for cooperation, modesty, caring for the weak and quality of life. Society at large is more consensus-oriented.	Hofstede (2010)
Uncertainty avoidance	The Uncertainty Avoidance dimension expresses the degree to which the members of a society feel uncomfortable with uncertainty and ambiguity. Countries exhibiting strong UAI maintain rigid codes of belief and behavior and are intolerant of unorthodox behavior and ideas. Weak UAI societies maintain a more relaxed attitude in which practice counts more than principles.	Hofstede (2010)
Power Distance	The power distance index is defined as "the extent to which the less powerful members of organizations and institutions (like the family) accept and expect that power is distributed unequally." A higher degree of the Index indicates that hierarchy is clearly established and executed in society, without doubt or reason. A lower degree of the Index signifies that people question authority and attempt to distribute power	Hofstede (2010)
<i>European Social Survey</i>		
Planning for the future	"Do you generally plan for your future or do you just take each day as it comes? Please express your opinion on a scale from 0 to 10, where 0 means 'I plan for my future as much as possible' and 10 means 'I just take each day as it comes' ". We recoded the question so that a higher number indicates more long-term oriented individuals.	European Social Survey, round 3.
Importance of having fun	The respondent is given the description of a person and he/she has to choose, on a scale from 1 to 6 whether the person is "Very much like me", "Like me", "Somewhat like me", "A little like me", "Not like me", "Not like me at all". "He seeks every chance he can to have fun. It is important to him to do things that give him pleasure". We recoded the	European Social Survey, Rounds 1-6

	question so that a higher number indicates more long-term individuals	
Importance of having a good time	The respondent is given the description of a person and he/she has to choose, on a scale from 1 to 6 whether the person is “Very much like me”, “Like me”, “Somewhat like me”, “A little like me”, “Not like me”, “Not like me at all”. “Having a good time is important to him. He likes to spoil himself”. We coded all the questions so that a higher number indicates more long-term oriented individuals.	European Social Survey, Rounds 1-6

A.2.3. Description of the samples in Florida Analysis and other technical details

Sample selection of immigrants attending public schools in Florida. Florida is one of the top immigrant states in the United States, both in terms of numbers of immigrants and immigrant share of the total population. One possible concern is that the population of immigrant students attending public schools is not representative of student immigrants in Florida. To address this concern, we compare the characteristics of first and second-generation immigrants going to public schools with those of the natives.² The descriptive statistics for the three groups based on Census 2000 and 2010 are shown in Table A3. In 2000, the fraction of natives and second-generation immigrants going to public schools is very similar (88% of natives and 87% of second-generation), while the number is slightly higher for the first generation (93%).³ Similarly, the family income of natives and second-generation immigrants does not differ substantially in 2000 (around \$61,000), whereas the average income is lower for the first generation (\$46,441). Furthermore, when we restrict the sample to families sending their children to public schools, the income is lower than the income of families with children in private schools, as expected, but the differences between groups is again similar for natives and second-generation immigrants (\$55,838 and \$52,842, respectively) and lower for first generation immigrants (\$43,526).⁴ The patterns are similar for 2010.

Sample of first generation immigrants. In our regressions we use two samples of first generation immigrants. For the first sample, we define this group using the country of origin of the children. For the second sample, we define this group using the country of origin of the children and also impose the additional restriction that they speak at home one of the main languages spoken in their

² When we look at the Census, we define second-generation immigrants as children born in the US with at least one parent born abroad.

³ The numbers are very similar in the Census 2010: 88% of native and second-generation immigrants, and 93% of first generation immigrants, attend public schools.

⁴ The differences across groups in the Census 2010 are similar.

country of birth (the list of the main languages spoken in a country is taken from the 17th version of the Ethnologue.)

Sample of second generation immigrants: We use two samples of second generation immigrants. The first one includes US born children whose mothers were born abroad. In the birth certificates of children born in Florida it is indicated whether the mother is born in the US or abroad. For a subset of countries or territories (Canada, Cuba, Guam, Mexico, Puerto Rico, US, and Virgin Islands) the place of birth of the mother is also indicated.⁵ For all the other foreign born mothers we know the mother was born abroad but do not have a country of birth. To construct the sample of second generation immigrants we use the information on the country of origin of the mother when available (Mexico, Puerto Rico and Canada) or the language spoken at home for individuals whose mother was born abroad but we do not have a country of origin. As we have birth certificates only for children born in Florida and the maternal place of birth is listed in the birth certificates, this group includes only children born in Florida. The second sample includes the group defined above along with all children born in the US (including children born outside Florida) and who speak a language different than English at home.⁶ We refer to the former sample as “second generation”, and to the latter as “second generation, extended definition”.

Matching languages and countries. For some students to identify the country of origin we use the language spoken at home. To create a match between languages and countries of origin we proceed as follows. For most languages there is a one to one association between language and country of origin. For languages spoken in multiple countries (for example Portuguese) we calculate the Long-Term Orientation cultural variable as a weighted average of the Long-Term Orientation of all the countries in which Portuguese is the main language spoken in the country. We use as weights the fraction of first generation immigrants in our sample speaking that language and born in a country where the language is indeed one of the spoken languages.

Construction of the clusters for standard errors. In all the regression we cluster the standard errors to account for correlation within the country of origin/language depending on whether we attribute the Hofstede variable using country of origin or language of origin. When we pool together first and second generation in the same regression to create parsimonious clusters and to avoid creating a

⁵ We use the information of the foreign countries or territories only for mothers born in Canada, Mexico, and Puerto Rico for which we have the Long Term Orientation variable. We drop all the students whose mothers are born in Cuba, Guam, and Virgin Islands and speak a language associated with these countries.

⁶ This second sample of extended generation students can be second generation immigrants on the mother side if they are born outside Florida or on the father side, or they can be third generation immigrants.

separate cluster country and language (for example “China” and “Chinese”) we use the following methodology. Whenever at least 60% of the 1st generation speakers of a given language come from one specific country, we attribute that language to the cluster dimension corresponding to that country. This happens in all cases but for Arabic, Croatian, French, and Spanish (when we are not able to identify the country of origin to the mother). In these cases, since it would be hard to map the language to a unique country of origin, we treat these languages as having their own cluster.

A.2.4. Description of variables for the Program for International Student Assessment

In reporting the test score in mathematics, reading and science, PISA assigns a probability distribution to each possible response pattern in each test to describe the ability associated with that pattern. From this distribution, PISA draws a set of five values associated with each student. These values are called plausible values because they represent alternative estimates of the student ability that could have been obtained. In our specification, we report the regressions for the average of the plausible values. We cluster the standard errors by country of origin. We also test the robustness of our results to the procedure recommended by the OECD, where we estimate one regression for each set of plausible values and report the arithmetic average of these estimates. For this procedure, we also apply the Fay’s Balanced Repeated Replicated methodology, which estimates the standard errors taking into account PISA’s stratified, two-stage sample design.⁷

<i>Dependent variables</i>		
<i>Name of the variable</i>	<i>Description</i>	<i>Source</i>
Math score	Average of the 5 plausible values for Math. This variable is present in the 2003, 2006, 2009, and 2012 PISA waves.	Created using variables PVMATH1 through PVMATH5
Reading score	Average of the 5 plausible values for Reading. This variable is present in the 2003, 2006, 2009, and 2012 PISA waves.	Created using variables PVREAD1 through PVREAD5
Science score	Average of the 5 plausible values for Science. This variable is present in the 2003, 2006, 2009, and 2012 PISA waves.	Created using variables PVSCIE1 through PVSCIE5
Retention	A dummy variable equal to 1 if a student repeated at least one year during his/her school career. This variable is present in the 2003, 2009, and 2012 PISA waves.	It is calculated starting from questions ST22Q01, ST22Q02 and ST22Q03 in wave 2003, questions ST07Q01, ST07Q02, ST07Q03 in wave 2009,

⁷ PISA’s stratification consists in selecting randomly the school in the first stage. In the second stage, students in each school are randomly assigned to carry out the test in all three subjects.

		questions ST07Q01, ST07Q02, ST07Q03 in wave 2012
Truancy	A dummy variable equal to 1 if the student, when asked “In the last two full weeks of school, how many times did you skip a whole school day?” ticked one of the following answers: “one or two times”, “three or four times”, “five or more times”; equal to 0 if s/he ticked the answer “none”. This variable is present only in the 2012 PISA wave.	Calculated using variable ST09, present only in wave 2012.
<i>Individual controls</i>		
<i>Name of the variable</i>	<i>Description</i>	<i>Source</i>
Male	A variable equal to one if the student is a boy	Calculated using variable ST03Q01 in wave 2003 and variable ST04Q01 in wave 2006, 2009, 2012.
Age	Age expressed in years.	Corresponds to the variable AGE
Grade	School grade	Corresponds to the variable ST01Q01
Parents' education	The variable takes values which correspond to the following education levels: none; primary education (ISCED 1); lower secondary education (ISCED 2); upper secondary education (ISCED 3B, C); post-secondary non-tertiary education (ISCED 3A, 4); first stage of tertiary education (ISCED 5B); second stage of tertiary education (ISCED 5A, 6). In all the regressions which control for this set of variables "none" is the omitted category.	Constructed using the variable HISCED
Wealth	<i>Wealth</i> is an index of family wealth possessions built by OECD – PISA based on the student's responses to several questions asking whether there are specific items in the student's home. Such items vary across waves, and some of them are specific of the country where the test is administered. This variable is present in the 2006, 2009, and 2012 PISA waves. For details see: https://www.oecd.org/pisa/ .	Corresponds to the variable WEALTH

A.3. Additional Tables

Table A1

List of countries, first generation immigrants, unrestricted and restricted sample

COUNTRY	1st generation, no language restriction	1st generation, language restriction	COUNTRY	1st generation, no language restriction	1st generation, language restriction
Albania	388	339	Korea, Republic of	639	388
Argentina	3,754	3,631	Lithuania	91	81
Australia	172	151	Malaysia	71	52
Austria	70		Mexico	15,750	15,133
Bangladesh	342	271	Morocco	132	117
Belgium	115	33	Nepal	40	
Bosnia and Herzegovina	369	327	Netherlands	154	66
Brazil	3,028	2,511	New Zealand	45	34
Bulgaria	182	114	Nigeria	204	179
Canada	2,312	1,782	Norway	59	
Chile	786	721	Pakistan	495	477
China	1,421	492	Peru	3,368	3,197
Colombia	10,387	9,856	Philippines	1,697	1,603
Croatia	71	55	Poland	188	134
Czech Republic	35		Portugal	99	47
Denmark	40		Puerto Rico	7,640	7,610
Dominican Republic	2,342	2,329	Romania	287	154
Egypt	246	190	Russia	1,250	469
El Salvador	1,017	960	Saudi Arabia	302	69
Estonia	30		Singapore	69	53
Finland	69	49	South Africa	288	254
France	503	381	Spain	687	482
Germany	2,657	512	Sri Lanka	38	35
Ghana	52	46	Sweden	161	88
Greece	220	72	Switzerland	86	30
Hong Kong	48	38	Taiwan	75	47
Hungary	141	85	Tanzania, United Rep. of	37	
Iceland	77		Thailand	240	144
India	1,380	1,322	Trinidad and Tobago	513	508
Indonesia	69	35	Turkey	196	114
Iran	111	76	Ukraine	612	321
Iraq	56	51	United Kingdom	2,366	2,103
Ireland	76	67	Uruguay	1,120	1,084
Israel	514	481	Venezuela	6,453	6,071
Italy	656	178	Vietnam	773	659
Japan	1,562	223	Zimbabwe	44	39
Jordan	144	121	Non-disclosed countries	275	318
			Total	81,986	69,659

Notes. The table reports the number of observations by country of origin for both the unrestricted and restricted definition of first generation immigrants. The unit of observation is a student born between 1992 and 2002 and observed during the academic years 2002-2012. To identify unrestricted first generation immigrants we use only the information on the country of origin of the student. We also use a restricted definition of first generation immigrant when we restrict our analysis to those students who speak at home one of the languages spoken in their country of origin (we eliminate first generation immigrants who do not speak at home one the languages of their country of origin). The total in column 1 refers to the sample used to run the regression shown in Table 2, column (2). The total in column 2 refers to the sample used to run the regression shown in Table 2, column (5). For confidentiality reasons with the FLDOE, we cannot report the number of observations for groups whose size is smaller than 30. We refer to the sum of all of them, as Non-disclosed countries. See the text of this Appendix for details.

Table A2
List of languages, second generation immigrants, restricted and extended definition

LANGUAGE (or MATERNAL COUNTRY OF BIRTH)	2nd generation	2nd generation, extended definition	LANGUAGE (or MATERNAL COUNTRY OF BIRTH)	2nd generation	2nd generation, extended definition
Afrikaans		59	Korean	428	784
Akan		43	Lao	304	497
Albanian	208	426	Lithuanian		57
Amharic	50	79	Malay	88	152
Arabic	1,878	3,205	Malayalam	127	265
Armenian	36	68	Marathi		49
Bengali	412	624	Mexico (country)	34,556	34,556
Bulgarian	43	70	Nepali		50
Chinese	1,830	3,153	Norwegian		52
Croatian	50	83	Panjabi	41	72
Czech	78	116	Persian, Iranian	232	372
Canada (country)	3,769	3,769	Polish	349	690
Danish		45	Portuguese	2,294	3,965
Dutch	143	224	Puerto Rico (country)	13,391	13,391
Estonian, Standard	69	105	Romanian	191	304
Finnish	46	96	Russian	528	1,134
French	1,668	2,858	Serbian	314	507
German	369	752	Slovak	37	63
Greek	180	658	Spanish	65,294	187,672
Gujarati	401	801	Swahili		30
Haitian	24,527	30,914	Swedish	97	154
Hausa	57	77	Tagalog	928	1,714
Hebrew	302	643	Tamil	91	189
Hindi	368	676	Telugu	163	331
Hmong		131	Thai	202	303
Hungarian	118	208	Turkish	122	236
Italian	210	684	Ukrainian	44	114
Japanese	178	340	Urdu	854	1,339
Kanjobal		90	Vietnamese	2,500	4,442
Kannada		46	Yoruba	62	116
Khmer	213	461	Not-disclosed languages	323	278
				160,763	305,382

Notes. The table reports the number of observations by language spoken at home. The unit of observation is a student born between 1992 and 2002 and observed during the academic years 2002-2012. To identify “2nd generation” immigrants we include all children born in Florida whose mothers were born abroad. If the country of origin of the mothers is indicated in the birth certificate (Canada, Mexico, Puerto Rico) we attribute the corresponding country to the student. If the birth certificate indicates only that the mother was born abroad, we use the language spoken at home to attribute the Long Term Orientation variable. To identify “2nd generation, extended definition” immigrants we consider in addition to the “2nd generation” immigrants every other student who speaks a language different from English at home. We match the language with the LTO variable according to the procedure explained in this Appendix. For confidentiality reasons with the FLDOE, we cannot report the number of observations for groups whose size is smaller than 30. We refer to the sum of all of them, as Non-disclosed languages.

Table A3
Descriptive statistics of students attending public and private schools in Florida,
Natives, First and Second Generation Immigrants

Panel A: Enrollment in Public School						
	Natives		1st generation		2nd generation	
	Obs.	Mean	Obs.	Mean	Obs.	Mean
Census 2000 (5%)						
Kindergarten	6,415	82.29%	646	84.83%	2,582	81.14%
Grade 1 to 4	26,500	86.69%	3,279	93.44%	9,438	86.76%
Grade 5 to 8	26,581	87.86%	4,477	93.52%	8,244	87.58%
Grade 9 to 12	21,813	90.58%	5,289	93.67%	6,576	87.61%
Overall sample	81,309	87.77%	13,691	93.15%	26,840	86.68%
Census 2010 (1%)						
Kindergarten	1,147	82.65%	91	74.73%	632	83.23%
Grade 1 to 4	4,556	85.45%	557	89.77%	2,301	88.57%
Grade 5 to 8	5,047	85.56%	855	90.64%	2,036	87.18%
Grade 9 to 12	4,726	87.85%	1,114	92.91%	1,861	88.07%
Overall sample	15,476	86.01%	2,617	90.87%	6,830	87.53%
Panel B: Family Income (USD)						
	Natives		1st generation		2nd generation	
	Obs.	Mean	Obs.	Mean	Obs.	Mean
Census 2000 (5%)						
Public school	71,364	55,838	12,648	43,526	23,264	52,842
Private school	9,945	102,409	928	86,163	3,576	106,669
Overall sample	81,309	61,534	13,576	46,441	26,840	60,014
Census 2010 (1%)						
Public school	13,311	71,906	2,372	54,343	5,978	65,630
Private school	2,165	123,921	238	115,190	852	136,119
Overall sample	15,476	79,183	2,610	59,892	6,830	74,423

Notes. The table reports the fraction of students by grade and family income enrolled in public and private schools in Florida. The data are based on Census 2000 and 2010 and report the statistics for natives, first generation immigrants and second generation immigrants. "2nd generation" is identified as having at least the mother or the father born abroad.

Table A4
Long-Term Orientation and maternal characteristics, extended second generation

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Math score, 3rd grade	Math score, change 3rd to 8th	Reading score, 3rd grade	Reading score, change 3rd to 8th	Graduation	% Absent Days	Disciplinary Incident	Retention
Long-Term Orientation	0.697*** (0.124)	0.449*** (0.117)	0.452*** (0.071)	0.377*** (0.101)	0.024 (0.014)	-0.020** (0.008)	-0.139*** (0.036)	-0.016*** (0.003)
Mother high school graduate	0.083*** (0.020)	0.022** (0.010)	0.089*** (0.019)	0.032* (0.018)	0.013 (0.008)	-0.001 (0.001)	-0.021** (0.009)	-0.009*** (0.002)
Mother attended some college	0.170*** (0.020)	0.052*** (0.015)	0.177*** (0.014)	0.067*** (0.015)	0.018 (0.018)	-0.001 (0.002)	-0.028*** (0.009)	-0.013*** (0.002)
Mother 4yr college graduate	0.337*** (0.015)	0.153*** (0.008)	0.317*** (0.011)	0.175*** (0.016)	0.049*** (0.010)	-0.006** (0.002)	-0.051*** (0.010)	-0.016*** (0.002)
Mother teen pregnancy	-0.070*** (0.024)	0.003 (0.036)	-0.019 (0.027)	-0.053 (0.049)	0.042 (0.031)	0.012*** (0.002)	0.049*** (0.010)	0.005 (0.003)
Mother married at time of birth	0.102*** (0.007)	0.056*** (0.005)	0.084*** (0.005)	0.048*** (0.008)	0.037*** (0.008)	-0.007*** (0.000)	-0.058*** (0.005)	-0.008*** (0.001)
Number of older siblings	-0.028*** (0.004)	-0.012*** (0.003)	-0.039*** (0.006)	-0.008 (0.005)	-0.005*** (0.001)	0.003*** (0.001)	0.021*** (0.001)	0.003*** (0.001)
Median income in zipcode of birth (100,000 of \$)	0.173*** (0.026)	0.002 (0.032)	0.143*** (0.013)	0.044** (0.018)	0.064*** (0.019)	0.004 (0.003)	-0.039** (0.017)	-0.011*** (0.002)
Male	0.128*** (0.020)	-0.047*** (0.008)	-0.067*** (0.017)	-0.067*** (0.008)	-0.042*** (0.007)	0.000 (0.000)	0.096*** (0.005)	0.013*** (0.001)
Age in months	-0.010*** (0.001)	-0.016*** (0.001)	-0.012*** (0.001)	-0.011*** (0.001)	0.001 (0.002)	0.001*** (0.000)	0.007*** (0.000)	-0.001*** (0.000)
Free or Reduced Priced Lunch	-0.154*** (0.008)	-0.035*** (0.008)	-0.163*** (0.009)	-0.064*** (0.008)	-0.018*** (0.008)	0.000 (0.002)	0.037*** (0.003)	0.006*** (0.000)
Special education	-0.658*** (0.022)	-0.233*** (0.006)	-0.753*** (0.024)	-0.187*** (0.008)	-0.173*** (0.012)	0.006*** (0.000)	0.017*** (0.002)	0.037*** (0.001)
Enrolled in Limited English proficiency program	-0.612*** (0.005)		-0.689*** (0.011)		-0.204** (0.080)	0.002** (0.001)	0.046*** (0.005)	0.070*** (0.003)
Enrolled in Limited English proficiency program in grade 3		-0.005 (0.015)		-0.114*** (0.012)				
Math score in grade 3		-0.368*** (0.008)						
Reading score in grade 3				-0.417*** (0.006)				
Observations	184,331	62,005	184,309	61,668	6,623	960,054	425,110	762,581
R-squared	0.368	0.334	0.379	0.319	0.324	0.182	0.150	0.121
Year*school FE	YES	YES	YES	YES	YES	YES	YES	YES
Grade FE	-	-	-	-	-	YES	YES	YES
Dependent Variable (mean)	0.000	0.000	0.000	0.000	0.874	0.045	0.208	0.042
Dependent Variable (sd)	1.000	0.778	1.000	0.809	0.332	0.057	0.406	0.200
Long-Term Orientation (mean)	0.207	0.209	0.207	0.210	0.214	0.206	0.206	0.206
Long-Term Orientation (sd)	0.143	0.149	0.143	0.149	0.158	0.144	0.146	0.144
Long-Term Orientation (beta)	0.100	0.086	0.065	0.070	0.011	-0.049	-0.050	-0.011
N_clust	90	79	90	79	58	90	82	90

Notes. The table replicates the results in Table 6 for the following dependent variables: students' Florida Comprehensive Assessment Test reading score in grade 3 (standardized with mean 0 and variance 1), the change in reading score from grade 3 to grade 8, high school graduation (a dummy for whether the student received a standard diploma within four years after entering the 9th grade for the first time), absence rates (the percentage of days in which the student is absent during the academic year) and retention (an indicator for whether the student repeats the same grade at least once) measured in grades 3-12, and disciplinary incidents (a dummy for whether the student was involved in a disciplinary incident defined as serious offences often leading to suspension) measured in grades 6-12. The table reports OLS estimates, with standard errors clustered at the language/country level. The unit of observation is a student born between 1992 and 2002 and observed during the academic years 2002-2012. The sample includes the extended version of second generation immigrants defined using the information on the country of origin of the mother when available (Canada, Mexico, and Puerto Rico), or the language spoken at home for the remaining students for which the country of origin of the mother is not available. See details in the text and this Appendix for how the matching between languages and countries has been implemented. Individual controls are: age in months, a male dummy, an indicator variable for free or reduced free lunch eligibility, a dummy indicating if the student is enrolled in a limited English proficiency program and indicator for special education needs. Maternal controls include education dummies (high school, some college and college graduate; the excluded group is college drop-out), whether the mother was younger than 16 when she gave birth, the mother's marital status at the time of birth, the number of older siblings, and the median income in the zip code of the place of residence at the time of birth (measured in 1999). The "Long Term Orientation" variable is based on Hofstede (2010) and is measured on a 0-1 scale. We describe in details all the variables in this Appendix. ***, **, and * indicate significance at the 1%, 5%, and 10% levels.

Table A5
Long-Term Orientation and educational outcomes, robustness to Hanushek et al. measure
of educational selection

First and second generation immigrants (extended definition), pooled

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Math score, 3rd grade	Math score, change 3rd to 8th	Reading score, 3rd grade	Reading score, change 3rd to 8th	Graduation	% Absent Days	Disciplinary Incident	Retention
Long-Term Orientation	0.372*** (0.098)	0.278*** (0.059)	0.168** (0.068)	0.163* (0.085)	0.054* (0.031)	-0.018** (0.007)	-0.076*** (0.020)	-0.016*** (0.004)
Log GDP pc year 2000 ppp	-0.102*** (0.029)	-0.112*** (0.019)	-0.044* (0.024)	-0.096*** (0.023)	-0.011 (0.008)	0.007*** (0.002)	0.022*** (0.007)	0.005*** (0.001)
Distance from the US (log)	-0.076*** (0.021)	-0.039** (0.018)	-0.079*** (0.017)	-0.058** (0.025)	-0.025*** (0.006)	0.001 (0.001)	0.000 (0.004)	0.006*** (0.001)
Savings over GDP/100	0.552*** (0.168)	0.450*** (0.138)	0.271* (0.142)	0.225 (0.226)	0.088 (0.063)	-0.021* (0.012)	-0.118** (0.054)	-0.009 (0.007)
Education selection, Hanushek et al.	1.188*** (0.123)	0.463*** (0.169)	1.147*** (0.090)	0.894*** (0.272)	0.428*** (0.054)	0.013* (0.007)	-0.074*** (0.017)	-0.084*** (0.008)
Observations	93,854	34,612	93,821	34,508	22,089	762,302	436,380	616,034
R-squared	0.429	0.404	0.455	0.415	0.386	0.194	0.125	0.119
Year*school FE	YES	YES	YES	YES	YES	YES	YES	YES
Grade FE	-	-	-	-	-	YES	YES	YES
Individual controls	YES	YES	YES	YES	YES	YES	YES	YES
Dependent Variable (mean)	0.000	0.000	0.000	0.000	0.789	0.048	0.179	0.040
Dependent Variable (sd)	1.000	0.779	1.000	0.832	0.408	0.068	0.383	0.196
Long-Term Orientation (mean)	0.285	0.284	0.285	0.284	0.293	0.289	0.290	0.287
Long-Term Orientation (sd)	0.143	0.149	0.143	0.148	0.166	0.156	0.161	0.154
Long-Term Orientation (beta)	0.053	0.053	0.024	0.029	0.022	-0.040	-0.032	-0.013
N_clust	109	101	109	101	105	112	109	111

Notes. The table reports OLS estimates, with standard errors clustered at the language/country level. The unit of observation is a student born between 1992 and 2002 and observed during the academic years 2002-2012. The sample includes the pooled sample of first generation (defined using both the information on the country of origin and the language spoken at home) and second generation immigrants (extended definition) defined using the information on the country of origin of the mother when available (Canada, Mexico, and Puerto Rico), or the language spoken at home for the remaining students for which the country of origin of the mother is not available. The dependent variables include: students' Florida Comprehensive Assessment Test math and reading score in grade 3 (standardized with mean 0 and variance 1), the change in math and reading score from grade 3 to grade 8, high school graduation (a dummy for whether the student received a standard diploma within four years after entering the 9th grade for the first time), absence rates (the percentage of days in which the student is absent during the academic year) and retention (an indicator for whether the student repeats the same grade at least once) measured in grades 3-12, and disciplinary incidents (a dummy for whether the student was involved in a disciplinary incident defined as serious offences often leading to suspension) measured in grades 6-12. All the regressions include the same individual controls described in Table 2 (coefficients not reported). The country controls are described in the appendix. The "Long-Term Orientation" variable is based on Hofstede (2010) and is measured on a 0-1 scale. The additional country-controls and all the remaining variables are described in the online Appendix. ***, **, and * indicate significance at the 1%, 5%, and 10% levels.

Table A6
Long-Term Orientation and educational outcomes, robustness to the inclusion of the PISA score in mathematics in the country of origin
First and second generation immigrants (extended definition), pooled

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Math score, 3rd grade	Math score, change 3rd to 8th	Reading score, 3rd	Reading score, change 3rd to 8th	Graduation	% Absent Days	Disciplinary Incident	Retention
Long-Term Orientation	0.398***	0.327***	0.285***	0.269**	0.045	-0.014**	-0.071***	-0.012**
	(0.124)	(0.104)	(0.098)	(0.126)	(0.034)	(0.006)	(0.026)	(0.006)
Log GDP pc year 2000 ppp	-0.125***	-0.141***	-0.056***	-0.124***	-0.022***	0.008***	0.030***	0.004***
	(0.026)	(0.028)	(0.020)	(0.030)	(0.007)	(0.001)	(0.005)	(0.001)
Distance from the US (log)	-0.019	-0.022	-0.032	-0.029	-0.002	0.002**	-0.003	0.000
	(0.027)	(0.019)	(0.024)	(0.021)	(0.005)	(0.001)	(0.004)	(0.001)
Savings over GDP/100	-0.028	0.223*	-0.149	0.174	-0.044	-0.011	-0.073**	-0.001
	(0.208)	(0.121)	(0.234)	(0.225)	(0.081)	(0.010)	(0.037)	(0.021)
PISA score in math	0.049	0.020	0.010	-0.016	0.025*	-0.005***	-0.017*	-0.001
	(0.043)	(0.045)	(0.032)	(0.052)	(0.013)	(0.002)	(0.010)	(0.002)
Observations	109,331	40,560	109,304	40,438	26,202	889,490	510,495	718,548
R-squared	0.420	0.391	0.438	0.400	0.364	0.189	0.123	0.112
Year*school FE	YES	YES	YES	YES	YES	YES	YES	YES
Grade FE	-	-	-	-	-	YES	YES	YES
Individual controls	YES	YES	YES	YES	YES	YES	YES	YES
Dependent Variable (mean)	0.000	0.000	0.000	0.000	0.806	0.048	0.171	0.037
Dependent Variable (sd)	1.000	0.773	1.000	0.836	0.396	0.067	0.376	0.190
Long-Term Orientation (mean)	0.313	0.309	0.313	0.309	0.319	0.315	0.317	0.313
Long-Term Orientation (sd)	0.169	0.174	0.169	0.174	0.190	0.181	0.186	0.179
Long-Term Orientation (beta)	0.067	0.074	0.048	0.056	0.022	-0.038	-0.035	-0.011
N_clust	108	103	108	103	102	110	108	109

Notes. The table reports OLS estimates, with standard errors clustered at the language/country level. The unit of observation is a student born between 1992 and 2002 and observed during the academic years 2002-2012. The sample includes the pooled sample of first generation (defined using both the information on the country of origin and the language spoken at home) and second generation immigrants (extended definition) defined using the information on the country of origin of the mother when available (Canada, Mexico, and Puerto Rico), or the language spoken at home for the remaining students for which the country of origin of the mother is not available. The dependent variables include: students' Florida Comprehensive Assessment Test math and reading score in grade 3 (standardized with mean 0 and variance 1), the change in math and reading score from grade 3 to grade 8, high school graduation (a dummy for whether the student received a standard diploma within four years after entering the 9th grade for the first time), absence rates (the percentage of days in which the student is absent during the academic year) and retention (an indicator for whether the student repeats the same grade at least once) measured in grades 3-12, and disciplinary incidents (a dummy for whether the student was involved in a disciplinary incident defined as serious offences often leading to suspension) measured in grades 6-12. All the regressions include the same individual controls described in Table 2 (coefficients not reported). The country controls are described in the appendix. The "Long Term Orientation" variable is based on Hofstede (2010) and is measured on a 0-1 scale. The additional country-controls and all the remaining variables are described in the online Appendix. ***, **, and * indicate significance at the 1%, 5%, and 10% levels.

Table A7
Futureless language (Chen) and educational outcomes,
robustness to the exclusion of Spanish speakers

PANEL A: 1st generation + 2nd generation (extended definition), exclusion of Spanish speakers								
VARIABLES	(1) Math score, 3rd grade	(2) Math score, change 3rd to 8th	(3) Reading score, 3rd grade	(4) Reading score, change 3rd to 8th	(5) Graduation	(6) % Absent Days	(7) Disciplinary Incident	(8) Retention
Futureless Language (Chen)	0.302*** (0.107)	0.216** (0.093)	0.172*** (0.053)	0.182** (0.085)	0.028** (0.011)	-0.012** (0.006)	-0.047** (0.022)	-0.003** (0.001)
Observations	67,788	26,033	67,757	25,964	18,646	581,789	343,900	465,393
R-squared	0.405	0.422	0.417	0.420	0.353	0.168	0.119	0.114
Year*school FE	YES	YES	YES	YES	YES	YES	YES	YES
Grade FE	-	-	-	-	-	YES	YES	YES
Individual controls	YES	YES	YES	YES	YES	YES	YES	YES
Dependent Variable (mean)	0.000	0.000	0.000	0.000	0.877	0.042	0.133	0.023
Dependent Variable (sd)	1.000	0.766	1.000	0.844	0.328	0.064	0.339	0.149
Futureless Language (mean)	0.108	0.110	0.108	0.109	0.093	0.102	0.100	0.101
Futureless Language (sd)	0.310	0.312	0.310	0.312	0.291	0.303	0.300	0.301
Futureless Language (beta)	0.094	0.088	0.053	0.067	0.025	-0.055	-0.042	-0.006
N_clust	80	73	80	73	70	85	83	84

PANEL B: 1st generation, exclusion of Spanish speakers								
VARIABLES	(1) Math score, 3rd grade	(2) Math score, change 3rd to 8th	(3) Reading score, 3rd grade	(4) Reading score, change 3rd to 8th	(5) Graduation	(6) % Absent Days	(7) Disciplinary Incident	(8) Retention
Futureless Language (Chen)	0.305*** (0.050)	0.237** (0.104)	0.110*** (0.038)	0.161** (0.069)	0.004 (0.018)	-0.005* (0.003)	-0.037*** (0.007)	-0.003* (0.001)
Observations	30,274	11,985	30,261	11,947	11,392	321,798	204,298	253,240
R-squared	0.529	0.566	0.536	0.565	0.400	0.213	0.145	0.150
Year*school FE	YES	YES	YES	YES	YES	YES	YES	YES
Country FE	YES	YES	YES	YES	YES	YES	YES	YES
Grade FE	-	-	-	-	-	YES	YES	YES
Individual controls	YES	YES	YES	YES	YES	YES	YES	YES
Dependent Variable (mean)	0.000	0.000	0.000	0.000	0.867	0.045	0.133	0.024
Dependent Variable (sd)	1.000	0.782	1.000	0.862	0.339	0.067	0.340	0.155
Futureless Language (mean)	0.067	0.063	0.067	0.063	0.066	0.072	0.073	0.068
Futureless Language (sd)	0.250	0.244	0.250	0.243	0.248	0.258	0.260	0.252
Futureless Language (beta)	0.076	0.074	0.027	0.045	0.003	-0.020	-0.028	-0.005
N_clust	77	70	77	70	68	84	81	82

Notes. The table repeats the same analysis as Table 13, Panel A and B in the text excluding students speaking Spanish. The unit of observation is a student born between 1992 and 2002 and observed during the academic years 2002-2012. In Panel A, the sample pools together first generation immigrants defined using the information on both the country of origin and the language spoken at home and the extended version of second generation immigrants defined using the information on the country of origin of the mother when available (Canada) or the language spoken at home for individuals whose mother was born either in the US or abroad (when the country of origin of the mother is not available). See details in the text and this Appendix for how the matching between languages and countries has been implemented. Panel B includes only first generation immigrants. The dependent variables are: students' Florida Comprehensive Assessment Test math score in grade 3 (standardized with mean 0 and variance 1), the change in math score from grade 3 to grade 8, reading score in grade 3 (standardized with mean 0 and variance 1), change in reading score from grade 3 to grade 8, high school graduation (a dummy for whether the student received a standard diploma within four years after entering the 9th grade for the first time), absence rates (the percentage of days in which the student is absent during the academic year), disciplinary incidents (a dummy for whether the student was involved in a disciplinary incident, defined as serious offences often leading to suspension), and retention (an indicator for whether the student repeats the same grade at least once). The regressions also include the same individual controls reported in Table A4 (coefficients not reported). Futureless language is a dummy variable equal to 1 for "futureless" languages (languages that do not require "obligatory future time reference use in prediction-based contexts") from Chen (2013). We describe in details all the variables in this Appendix. ***, **, and * indicate significance at the 1%, 5%, and 10% levels.

Table A8
Long-Term Orientation and educational outcomes, sample restricted to non-missing values for other cultural variables

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Math score, 3rd grade	Math score, change 3rd to	Reading score, 3rd grade	Reading score, change 3rd to	Graduation	% Absent Days	Disciplinary Incident	Retention
Trust								
Long-Term Orientation	0.669*** (0.111)	0.469*** (0.080)	0.429*** (0.084)	0.437*** (0.095)	0.106*** (0.025)	-0.035*** (0.008)	-0.132*** (0.031)	-0.020*** (0.005)
Observations	363,157	130,804	363,090	130,195	78,905	2,807,150	1,569,296	2,282,427
R-squared	0.342	0.310	0.352	0.301	0.338	0.196	0.124	0.087
Dependent Variable (mean)	0.000	0.000	0.000	0.000	0.773	0.053	0.213	0.045
Dependent Variable (sd)	1.000	0.780	1.000	0.830	0.419	0.071	0.410	0.206
Long-Term Orientation (mean)	0.208	0.211	0.208	0.211	0.216	0.211	0.213	0.210
Long-Term Orientation (sd)	0.143	0.147	0.143	0.147	0.156	0.150	0.153	0.148
Long-Term Orientation (beta)	0.096	0.088	0.061	0.077	0.039	-0.074	-0.049	-0.014
N_clust	140	133	140	133	134	142	139	141
Hard work								
Long-Term Orientation	0.668*** (0.112)	0.469*** (0.081)	0.424*** (0.085)	0.439*** (0.095)	0.106*** (0.025)	-0.035*** (0.008)	-0.132*** (0.031)	-0.020*** (0.005)
Observations	360,722	129,909	360,656	129,299	78,347	2,787,641	1,558,233	2,266,907
R-squared	0.342	0.310	0.353	0.301	0.338	0.197	0.124	0.087
Dependent Variable (mean)	0.000	0.000	0.000	0.000	0.772	0.053	0.213	0.045
Dependent Variable (sd)	1.000	0.780	1.000	0.830	0.419	0.071	0.410	0.207
Long-Term Orientation (mean)	0.207	0.209	0.207	0.209	0.215	0.210	0.211	0.209
Long-Term Orientation (sd)	0.142	0.146	0.142	0.146	0.156	0.149	0.152	0.148
Long-Term Orientation (beta)	0.095	0.088	0.060	0.077	0.039	-0.074	-0.049	-0.014
N_clust	129	123	129	123	123	131	128	130
Individualism								
Long-Term Orientation	0.547*** (0.088)	0.388*** (0.059)	0.337*** (0.069)	0.278*** (0.073)	0.096*** (0.025)	-0.023*** (0.004)	-0.118*** (0.014)	-0.013*** (0.003)
Observations	118,432	44,057	118,391	43,918	28,472	964,622	554,107	778,760
R-squared	0.429	0.385	0.443	0.394	0.367	0.187	0.123	0.110
Dependent Variable (mean)	0.000	0.000	0.000	0.000	0.812	0.046	0.163	0.036
Dependent Variable (sd)	1.000	0.762	1.000	0.828	0.391	0.067	0.369	0.186
Long-Term Orientation (mean)	0.326	0.324	0.326	0.324	0.328	0.326	0.326	0.324
Long-Term Orientation (sd)	0.184	0.190	0.184	0.190	0.199	0.192	0.195	0.190
Long-Term Orientation (beta)	0.099	0.094	0.060	0.060	0.049	-0.065	-0.062	-0.013
N_clust	114	111	114	111	109	115	113	114
Indulgence/restraint								
Long-Term Orientation	0.670*** (0.112)	0.467*** (0.081)	0.428*** (0.085)	0.437*** (0.096)	0.107*** (0.025)	-0.035*** (0.008)	-0.132*** (0.031)	-0.020*** (0.005)
Observations	362,627	130,582	362,560	129,973	78,744	2,801,558	1,565,824	2,277,991
R-squared	0.343	0.310	0.353	0.301	0.338	0.195	0.124	0.087
Dependent Variable (mean)	0.000	0.000	0.000	0.000	0.773	0.053	0.213	0.045
Dependent Variable (sd)	1.000	0.779	1.000	0.830	0.419	0.071	0.409	0.206
Long-Term Orientation (mean)	0.208	0.211	0.208	0.211	0.216	0.211	0.213	0.210
Long-Term Orientation (sd)	0.143	0.147	0.143	0.147	0.156	0.150	0.153	0.148
Long-Term Orientation (beta)	0.096	0.088	0.061	0.077	0.040	-0.075	-0.049	-0.014
N_clust	141	134	141	134	135	143	140	142

Table A8-continued
Long-Term Orientation and educational outcomes, sample restricted to non-missing values for other cultural variables

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Math score, 3rd grade	Math score, change 3rd to	Reading score, 3rd grade	Reading score, change 3rd to	Graduation	% Absent Days	Disciplinary Incident	Retention
Masculinity/feminity								
Long-Term Orientation	0.547*** (0.088)	0.388*** (0.059)	0.337*** (0.069)	0.278*** (0.073)	0.096*** (0.025)	-0.023*** (0.004)	-0.118*** (0.014)	-0.013*** (0.003)
Observations	118,432	44,057	118,391	43,918	28,472	964,622	554,107	778,760
R-squared	0.429	0.385	0.443	0.394	0.367	0.187	0.123	0.110
Dependent Variable (mean)	0.000	0.000	0.000	0.000	0.812	0.046	0.163	0.036
Dependent Variable (sd)	1.000	0.762	1.000	0.828	0.391	0.067	0.369	0.186
Long-Term Orientation (mean)	0.326	0.324	0.326	0.324	0.328	0.326	0.326	0.324
Long-Term Orientation (sd)	0.184	0.190	0.184	0.190	0.199	0.192	0.195	0.190
Long-Term Orientation (beta)	0.099	0.094	0.060	0.060	0.049	-0.065	-0.062	-0.013
N_clust	114	111	114	111	109	115	113	114
Power Distance								
Long-Term Orientation	0.547*** (0.088)	0.388*** (0.059)	0.337*** (0.069)	0.278*** (0.073)	0.096*** (0.025)	-0.023*** (0.004)	-0.118*** (0.014)	-0.013*** (0.003)
Observations	118,432	44,057	118,391	43,918	28,472	964,622	554,107	778,760
R-squared	0.429	0.385	0.443	0.394	0.368	0.187	0.123	0.110
Dependent Variable (mean)	0.000	0.000	0.000	0.000	0.812	0.046	0.163	0.036
Dependent Variable (sd)	1.000	0.762	1.000	0.828	0.391	0.067	0.369	0.186
Long-Term Orientation (mean)	0.326	0.324	0.326	0.324	0.328	0.326	0.326	0.324
Long-Term Orientation (sd)	0.184	0.190	0.184	0.190	0.199	0.192	0.195	0.190
Long-Term Orientation (beta)	0.099	0.094	0.060	0.060	0.049	-0.065	-0.062	-0.013
N_clust	114	111	114	111	109	115	113	114
Uncertainty Avoidance								
Long-Term Orientation	0.547*** (0.088)	0.388*** (0.059)	0.337*** (0.069)	0.278*** (0.073)	0.096*** (0.025)	-0.023*** (0.004)	-0.118*** (0.014)	-0.013*** (0.003)
Uncertainty Avoidance Index	-0.126 (0.092)	-0.033 (0.058)	-0.135 (0.087)	0.065 (0.065)	-0.035 (0.022)	0.015*** (0.005)	0.053*** (0.016)	0.001 (0.005)
Observations	118,432	44,057	118,391	43,918	28,472	964,622	554,107	778,760
R-squared	0.429	0.385	0.443	0.394	0.368	0.188	0.123	0.110
Dependent Variable (mean)	0.000	0.000	0.000	0.000	0.812	0.046	0.163	0.036
Dependent Variable (sd)	1.000	0.762	1.000	0.828	0.391	0.067	0.369	0.186
Long-Term Orientation (mean)	0.326	0.324	0.326	0.324	0.328	0.326	0.326	0.324
Long-Term Orientation (sd)	0.184	0.190	0.184	0.190	0.199	0.192	0.195	0.190
Long-Term Orientation (beta)	0.099	0.094	0.060	0.060	0.049	-0.065	-0.062	-0.013
N_clust	114	111	114	111	109	115	113	114

Notes. The table reports OLS estimates, with standard errors clustered at the language/country level. The unit of observation is a student born between 1992 and 2002 and observed during the academic years 2002-2012. The sample includes the pooled sample of first generation (defined using both the information on the country of origin and the language spoken at home) and second generation immigrants (extended definition) defined using the information on the country of origin of the mother when available (Canada, Mexico, and Puerto Rico), or the language spoken at home for the remaining students for which the country of origin of the mother is not available. The dependent variables include: students' Florida Comprehensive Assessment Test math and reading score in grade 3 (standardized with mean 0 and variance 1), the change in math and reading score from grade 3 to grade 8, high school graduation (a dummy for whether the student received a standard diploma within four years after entering the 9th grade for the first time), absence rates (the percentage of days in which the student is absent during the academic year) and retention (an indicator for whether the student repeats the same grade at least once) measured in grades 3-12, and disciplinary incidents (a dummy for whether the student was involved in a disciplinary incident defined as serious offences often leading to suspension) measured in grades 6-12. All the regressions include the same individual and country controls described in Table 9 (coefficients not reported). For each panel the sample is restricted to those observations for which the cultural variable is not missing. The "Long Term Orientation" variable is based on Hofstede (2010) and is measured on a 0-1 scale. ***, **, and * indicate significance at the 1%, 5%, and 10% levels.

Table A9
Long-Term Orientation and educational outcomes, Heterogeneous effects, second generation (extended definition)

VARIABLES	(1) Math score, 3rd grade	(2) Math score, change 3rd to 8th	(3) Reading score, 3rd grade	(4) Reading score, change 3rd to 8th	(5) Graduation	(6) % Absent Days	(7) Disciplinary Incident	(8) Retention
Long-Term Orientation (LTO)	0.818*** (0.202)	0.448*** (0.164)	0.437*** (0.111)	0.353** (0.173)	-0.057 (0.075)	-0.035** (0.018)	-0.270*** (0.099)	-0.035** (0.014)
Mother high school graduate*LTO	-0.209** (0.087)	-0.064 (0.074)	-0.027 (0.064)	-0.120 (0.093)	0.090 (0.072)	0.017 (0.012)	0.126** (0.049)	0.013 (0.010)
Mother attended some college*LTO	-0.358*** (0.093)	-0.258*** (0.093)	-0.047 (0.065)	-0.190* (0.100)	0.090 (0.081)	0.024* (0.014)	0.170*** (0.047)	0.025** (0.010)
Mother 4yr college graduate*LTO	-0.268*** (0.099)	-0.092 (0.112)	0.051 (0.081)	-0.176 (0.134)	-0.000 (0.054)	0.031** (0.014)	0.202*** (0.044)	0.024*** (0.009)
Mother teen pregnancy*LTO	-0.679** (0.341)	-0.025 (0.488)	-0.877*** (0.277)	-0.199 (0.373)	-0.356 (0.495)	0.030 (0.021)	0.202 (0.162)	0.138*** (0.041)
Mother married at time of birth*LTO	0.145* (0.081)	0.103 (0.095)	0.002 (0.063)	0.274*** (0.089)	0.133 (0.106)	0.001 (0.005)	-0.007 (0.032)	0.001 (0.006)
Number of older siblings*LTO	-0.020 (0.023)	-0.046 (0.032)	-0.024 (0.032)	-0.051 (0.033)	0.008 (0.013)	0.001 (0.003)	-0.019 (0.013)	-0.002 (0.003)
Median income in zipcode of birth (100,000 of \$)*LTO	-0.022 (0.204)	0.224 (0.144)	0.042 (0.144)	-0.001 (0.174)	-0.212** (0.098)	-0.008 (0.013)	0.083 (0.078)	0.012 (0.010)
Free or Reduced Priced Lunch*LTO	0.039 (0.073)	-0.109* (0.058)	0.048 (0.066)	-0.066 (0.068)	0.021 (0.038)	-0.005 (0.007)	-0.051** (0.021)	-0.005 (0.003)
Mother high school graduate	0.122*** (0.027)	0.033* (0.019)	0.094*** (0.028)	0.055* (0.030)	-0.005 (0.015)	-0.005 (0.003)	-0.044*** (0.010)	-0.011*** (0.004)
Mother attended some college	0.240*** (0.020)	0.103*** (0.025)	0.187*** (0.022)	0.105*** (0.028)	-0.000 (0.028)	-0.006 (0.004)	-0.061*** (0.009)	-0.018*** (0.004)
Mother 4yr college graduate	0.390*** (0.017)	0.169*** (0.025)	0.304*** (0.022)	0.210*** (0.032)	0.053*** (0.010)	-0.012*** (0.004)	-0.094*** (0.008)	-0.022*** (0.002)
Mother teen pregnancy	0.048 (0.057)	0.008 (0.088)	0.128*** (0.041)	-0.021 (0.065)	0.102 (0.067)	0.006 (0.005)	0.013 (0.031)	-0.019*** (0.007)
Mother married at time of birth	0.074*** (0.014)	0.037** (0.018)	0.084*** (0.012)	-0.003 (0.020)	0.012 (0.023)	-0.007*** (0.001)	-0.055*** (0.006)	-0.008*** (0.001)
Number of older siblings	-0.024*** (0.007)	-0.004 (0.008)	-0.035*** (0.011)	0.002 (0.008)	-0.007** (0.003)	0.003*** (0.001)	0.024*** (0.002)	0.004*** (0.001)
Median income in zipcode of birth (100,000 of \$)	0.177*** (0.048)	-0.049 (0.048)	0.134*** (0.029)	0.043 (0.038)	0.113*** (0.031)	0.006 (0.005)	-0.057* (0.029)	-0.013*** (0.004)
Free or Reduced Priced Lunch	-0.163*** (0.014)	-0.012 (0.013)	-0.174*** (0.014)	-0.050*** (0.015)	-0.022* (0.012)	0.001 (0.003)	0.049*** (0.004)	0.007*** (0.001)
Observations	184,331	62,005	184,309	61,668	6,623	960,054	425,110	762,581
R-squared	0.369	0.334	0.379	0.319	0.325	0.183	0.151	0.121
Year*school FE	YES	YES	YES	YES	YES	YES	YES	YES
Grade FE	-	-	-	-	-	YES	YES	YES
Individual controls	YES	YES	YES	YES	YES	YES	YES	YES
Dependent Variable (mean)	0.000	0.000	0.000	0.000	0.874	0.045	0.208	0.042
Dependent Variable (sd)	1.000	0.778	1.000	0.809	0.332	0.057	0.406	0.200
Long-Term Orientation (mean)	0.207	0.209	0.207	0.210	0.214	0.206	0.206	0.206
Long-Term Orientation (sd)	0.143	0.149	0.143	0.149	0.158	0.144	0.146	0.144
Long-Term Orientation (beta)	0.117	0.086	0.062	0.065	-0.027	-0.088	-0.097	-0.025
N_clust	90	79	90	79	58	90	82	90

Notes. The Table repeats the same analysis reported in Table 10 for the following dependent variables: students' Florida Comprehensive Assessment Test reading score in grade 3 (standardized with mean 0 and variance 1), the change in reading score from grade 3 to grade 8, high school graduation (a dummy for whether the student received a standard diploma within four years after entering the 9th grade for the first time), absence rates (the percentage of days in which the student is absent during the academic year) and retention (an indicator for whether the student repeats the same grade at least once) measured in grades 3-12, and disciplinary incidents (a dummy for whether the student was involved in a disciplinary incident defined as serious offences often leading to suspension) measured in grades 6-12. The table reports OLS estimates, with standard errors clustered at the language/country level. The unit of observation is a student born between 1992 and 2002 and observed during the academic years 2002-2012. The sample includes the extended version of second generation immigrants defined using the information on the country of origin of the mother when available (Canada, Mexico, and Puerto Rico) or the language spoken at home for individuals whose mother was born either in the US or abroad (when the country of origin of the mother is not available). See details in the text and the appendix for how the matching between languages and countries has been implemented. The regressions also include the same individual controls reported in Table A4 (coefficients not reported). Maternal controls are also described in the note of Table A4. The "Long Term Orientation" variable is based on Hofstede (2010) and is measured on a 0-1 scale. We describe in details all the variables in this Appendix. ***, **, and * indicate significance at the 1%, 5%, and 10% levels.

Table A10

List of countries of origin, PISA, first and second generation (mother side and father side)

COUNTRY	1st generation	2nd generation (mother)	2nd generation (father)	COUNTRY	1st generation	2nd generation (mother)	2nd generation (father)
Albania	1,187	375	347	Macedonia	40	37	35
Argentina	217	93	85	Malaysia	119	71	61
Australia	368	189	151	Montenegro	17	88	79
Austria	71	273	198	Morocco	15	190	206
Bangladesh	7	13	11	Netherlands	306	262	308
Belarus	42	554	509	New Zealand	776	938	945
Belgium	155	307	271	Nigeria	4	0	2
Bosnia and Herzegovina	804	2,331	2,063	Pakistan	76	236	266
Brazil	331	225	207	Philippines	339	518	213
Bulgaria	9	36	20	Poland	159	359	279
Canada	5	2	2	Portugal	1,722	3,034	2,866
Chile	19	77	61	Republic of Korea	293	48	49
China	6,987	15,456	14,637	Romania	58	69	75
Colombia	9	6	7	Russian Federation	893	1,556	1,604
Croatia	147	254	212	Saudi Arabia	0	0	1
Czech Republic	80	223	195	Serbia	804	1,002	611
Denmark	37	84	113	Singapore	16	9	10
Egypt	952	769	715	Slovakia	172	582	690
Estonia	136	88	59	Slovenia	13	15	18
France	1,079	1,364	1,171	South Africa	418	114	116
Georgia	1	0	0	Spain	85	376	466
Germany	1,363	1,384	1,147	Sweden	276	396	307
Great Britain	2,686	4,330	4,396	Switzerland	172	116	99
Greece	25	101	165	Taiwan	22	28	11
Hong Kong-China	378	255	475	Tanzania	0	1	0
Hungary	17	20	18	Thailand	37	15	2
India	281	240	247	Turkey	589	3,194	3,497
Iran (Islamic Republic of)	8	7	12	Ukraine	133	566	607
Iraq	213	128	178	United States	1,409	489	636
Italy	383	1,754	3,029	Uruguay	16	97	85
Japan	2	2	0	Viet Nam	76	351	346
Jordan	592	187	149	Zambia	1	0	0
Lithuania	2	0	0				
				Total	27,649	45,884	45,340

Notes. The table reports the number of observations by country of origin for both first and second generation immigrants in the PISA sample. The observations for second generation students are calculated based both on mothers' or fathers' countries of origin. See the text of this Appendix for details.

Table A11
Number of first and second generation immigrants, by country of destination, PISA

COUNTRY	1st generation	2nd generation (mother)	2nd generation (father)	COUNTRY	1st generation	2nd generation (mother)	2nd generation (father)
Argentina	68	235	192	Latvia	242	2,032	2,200
Australia	3,070	5,411	5,453	Liechtenstein	239	279	247
Austria	773	1,340	1,310	Luxembourg	1,906	3,357	3,463
Belgium	1,375	1,221	1,256	Mauritius	3	19	12
China	2,971	10,082	9,466	Mexico	1,162	253	400
Costa Rica	9	6	7	Moldova	80	192	178
Croatia	633	1,698	1,616	Montenegro	956	1,421	779
Czech Republic	269	684	800	Netherlands	160	542	590
Denmark	233	962	1,033	New Zealand	1,567	951	1,012
Finland	688	614	469	Norway	133	231	228
Germany	277	1,173	1,244	Portugal	190	64	65
Great Britain	385	496	458	Qatar	1,544	956	863
Greece	770	207	178	Serbia	13	84	75
Hong Kong-China	3,773	5,063	5,162	Slovak Republic	74	213	185
Indonesia	72	18	19	Slovenia	12	11	16
Ireland	1,080	850	699	Switzerland	1,937	4,426	4,988
Israel	487	351	316	Turkey	74	111	61
Korea	7	16	1	Uruguay	330	193	181
Kyrgyzstan	87	122	118				
				Total	27,649	45,884	45,340

Notes. The table reports the number of observations of immigrants students (first and second generation) by country of destinations in the PISA sample. The observations for second generations students are calculated based both on mothers' or fathers' countries of origin.

Table A12
Long-Term Orientation and educational outcomes, PISA
Second generation immigrants (paternal side)

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Math	Reading	Science	Retention	Truancy	Math	Reading	Science	Retention	Truancy
Long-Term Orientation	0.697*** (0.205)	0.669*** (0.188)	0.767*** (0.204)	-0.080*** (0.021)	-0.073** (0.031)	0.747*** (0.211)	0.708*** (0.198)	0.823*** (0.213)	-0.086*** (0.019)	-0.074** (0.031)
Male	0.188*** (0.016)	-0.327*** (0.035)	0.076*** (0.019)	0.011* (0.006)	-0.010 (0.008)	0.196*** (0.015)	-0.324*** (0.033)	0.078*** (0.019)	0.009 (0.006)	-0.010 (0.008)
Age of student	-0.213*** (0.032)	-0.199*** (0.033)	-0.181*** (0.034)	0.271*** (0.035)	0.046*** (0.012)	-0.222*** (0.035)	-0.205*** (0.038)	-0.187*** (0.040)	0.291*** (0.034)	0.047*** (0.012)
Wealth						-0.002 (0.012)	-0.018* (0.009)	-0.025** (0.010)	0.005 (0.004)	0.004 (0.003)
Observations	45,340	45,340	45,340	29,735	13,346	38,033	38,033	38,033	23,448	13,314
R-squared	0.365	0.338	0.342	0.478	0.104	0.378	0.347	0.352	0.490	0.104
Year FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Grade FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Parents' education FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Country of destination FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Dependent Variable (mean)	0.000	0.000	0.000	0.143	0.120	0.000	0.000	0.000	0.156	0.120
Dependent Variable (sd)	1.000	1.000	1.000	0.350	0.325	1.000	1.000	1.000	0.363	0.324
Long-Term Orientation (mean)	0.643	0.643	0.643	0.639	0.617	0.642	0.642	0.642	0.634	0.617
Long-Term Orientation (sd)	0.223	0.223	0.223	0.224	0.230	0.228	0.228	0.228	0.231	0.230
Long-Term Orientation (beta)	0.156	0.149	0.171	-0.051	-0.052	0.170	0.161	0.187	-0.055	-0.052
N_clust	60	60	60	57	55	57	57	57	53	55

Notes. The table reports OLS estimates, with standard errors clustered at the country of origin level. The unit of observation is a second generation immigrant student on the paternal side from one of the 63 countries residing in one of the 37 countries surveyed in PISA for which information about the country of origin of the parents is available (4 waves from 2003 to 2012 depending on whether the variables used in the regression are all available – details are on the online Appendix). The dependent variables are Math, Reading, Science scores calculated according to the description on the online appendix, retention (a dummy variable equal to 1 if a student repeated at least one year during his/her school career), and truancy (a dummy variable equal to 1 if the student skipped at least one full day of school in the previous two weeks). The “Long Term Orientation” variable is based on Hofstede (2010) and is measured on a 0-1 scale. Individual controls are: male (a dummy equal to one if the student is a boy), age (the age of the student expressed in years), dummies for student grade and for parents’ education, wealth (an index of family wealth possessions built by OECD – PISA). We describe in details all the variables (and their availability in different PISA waves) on the online Appendix. ***, **, and * indicate significance at the 1%, 5%, and 10% levels.

Figure A1
Long-Term Orientation and educational outcomes, raw correlation, FLDOE
First generation immigrants

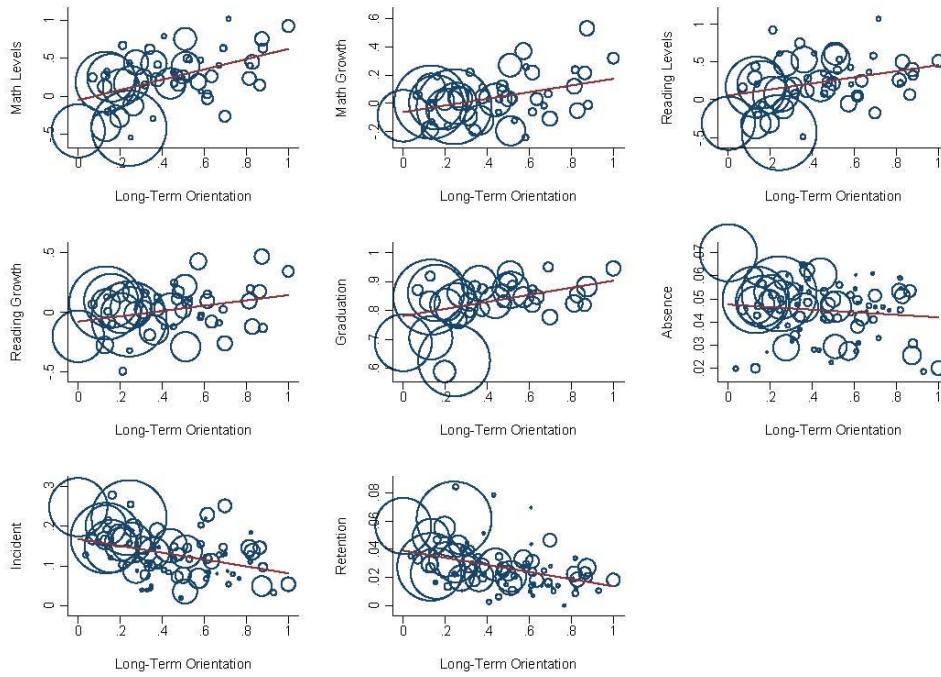


Figure A2
Long-Term Orientation and educational outcomes, raw correlation, FLDOE
Second generation immigrants

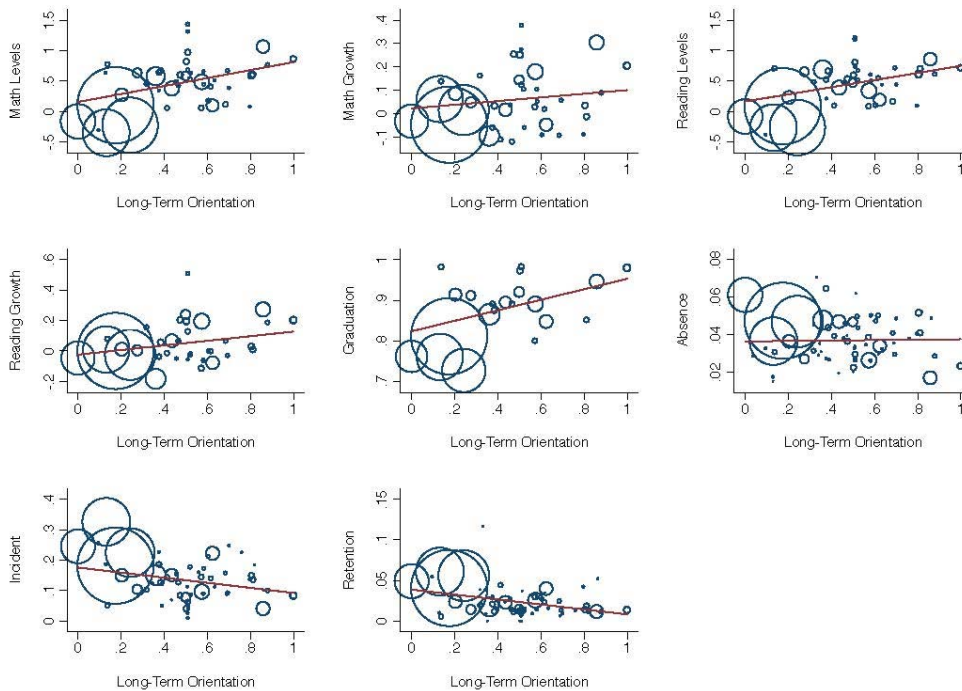


Figure A3
Long-Term Orientation and Educational Selection (based on Feliciano, 2005)

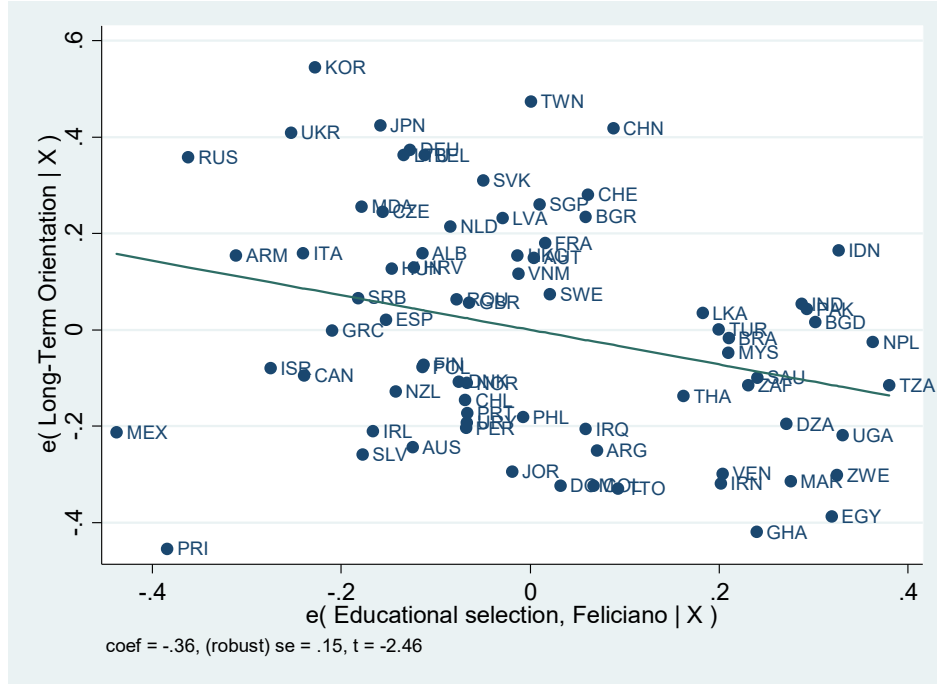
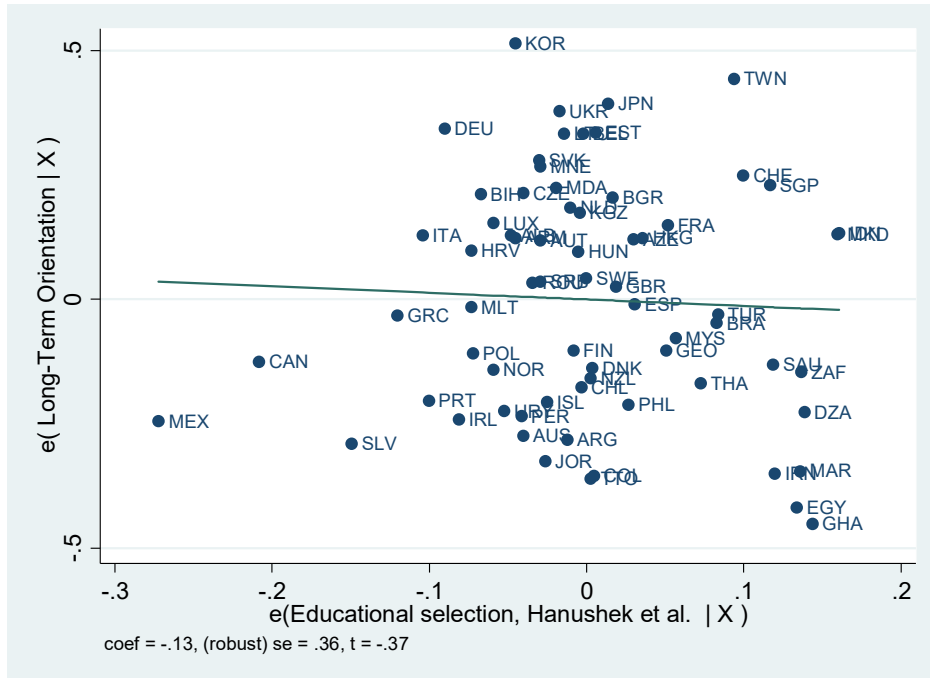


Figure A4
Long-Term Orientation and Educational Selection (based on Hanushek et al., forthcoming)



A.4. Selection of Immigrants on Long-Term Orientation

The European Social Survey contains information on the country of origin of immigrants, therefore allowing us to calculate a proxy of Long-Term Orientation for first generation immigrants by country. We find three potential proxies for Long-Term Orientation, based on the following three questions. The first question asks the respondent: “Do you generally plan for your future or do you just take each day as it comes? Please express your opinion on a scale from 0 to 10, where 0 means ‘I plan for my future as much as possible’ and 10 means ‘I just take each day as it comes’ ”. This question is however asked only in the third round of the European Social Survey and the number of individuals by country of origin is very small. We therefore select two other questions that were asked in all rounds. For these questions, the respondent is given the description of a person and he/she has to choose, on a scale from 1 to 6 whether the person is “Very much like me”, “Like me”, “Somewhat like me”, “A little like me”, “Not like me”, “Not like me at all”. We chose the following two descriptions “He seeks every chance he can to have fun. It is important to him to do things that give him pleasure”, and “Having a good time is important to him. He likes to spoil himself”. We coded all the questions so that a higher number indicates more long-term oriented individuals.

In Figures A5-A7, we plot the partial correlations between each of the three proxies of Long-Term Orientation for first generation immigrants, averaged at the country of origin level, and the measure of Long Term Orientation from the country of origin. As it is apparent from the Figures, while the measures of Long-Term Orientation for first generation immigrants are positively correlated with the one from the country of origin, it is not systematically the case that immigrants coming from Long-Term Oriented countries are positively selected in terms of this measure: the Long-Term Orientation measure of immigrants coming from these countries is not systematically higher than the one in the countries of origin.

Figure A5
Partial correlation between Long-Term Orientation of Immigrants and Long-Term Orientation from the country of origin, based on the question “Planning for the Future”

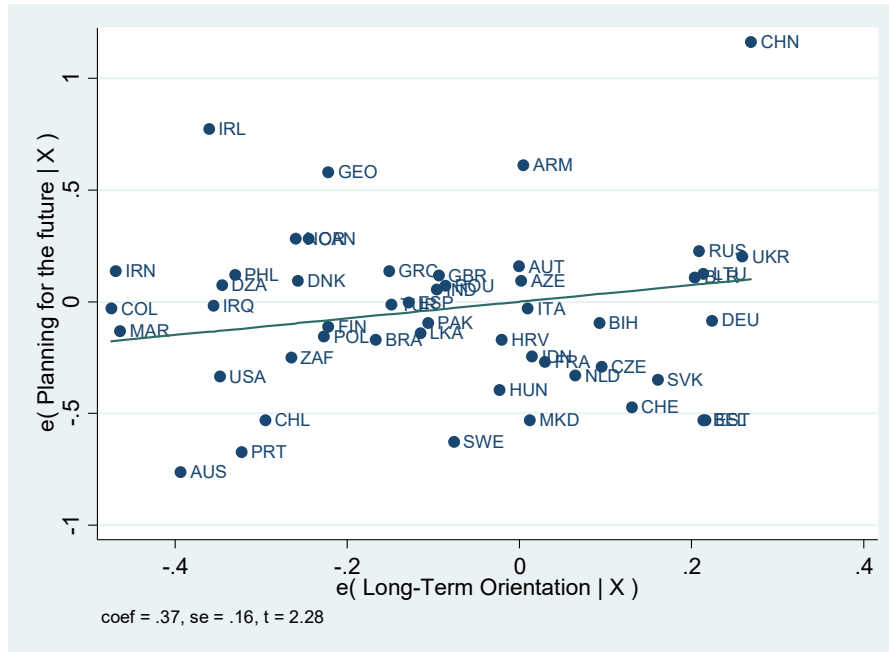


Figure A6
Partial correlation between Long-Term Orientation of Immigrants and Long-Term Orientation from the country of origin, based on the question “Importance of having fun”

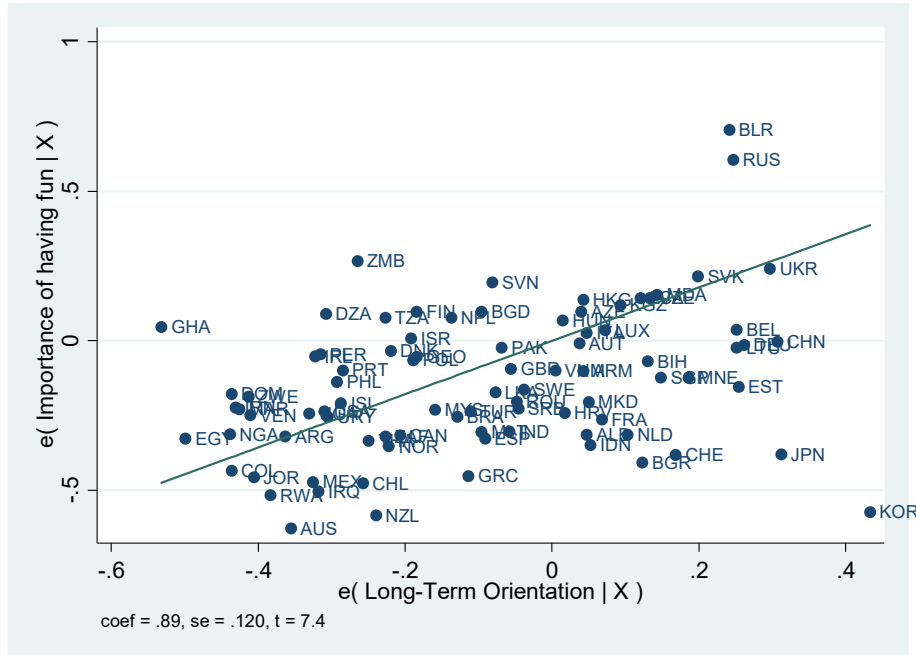
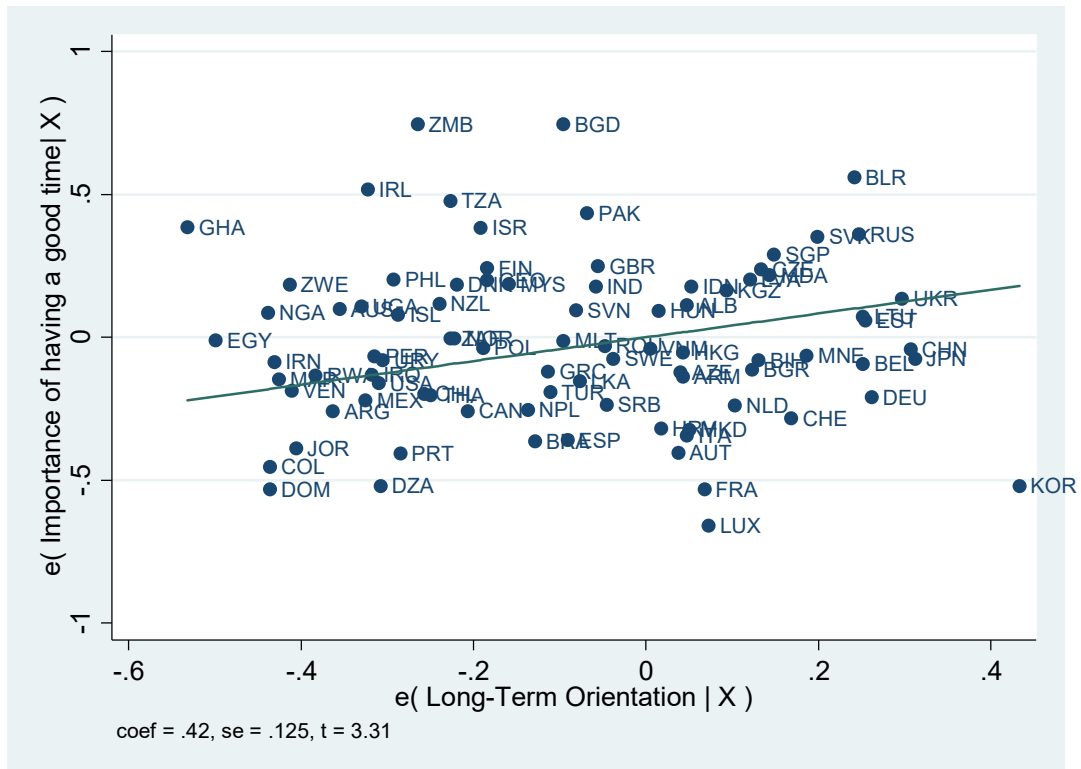


Figure A7
 Partial correlation between Long-Term Orientation of Immigrants and Long-Term Orientation from the country of origin, based on the question “Importance of having a good time”



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