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Academic achievement of immigrant children in Irish primary schools: the role of capitals and school context

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Abstract

Educational achievement is one of the key indicators of labour market success, yet previous research shows that in many countries, children from immigrant backgrounds struggle to match their native peers in terms of achievement. Despite high educational aspirations, migrant parents may struggle to 'convert' their social and cultural capital to support their children's achievement in their country of destination. Ireland is an interesting case study as there was substantial and rapid immigration of a diverse group of migrants, many of whom were European, to a school system that was predominantly White, Catholic, Irish and English-speaking. Drawing on the extensive literature on academic achievement of immigrant children and youth, this paper explores the academic achievement of 9-year-old immigrant children in a 'new immigration country', just after the peak of inward migration. The results show that unlike in many 'old' immigrant-receiving countries, the immigrant 'penalty' in achievement in Ireland is modest, with social and cultural capital playing a salient role in English reading achievement, particularly for East Europeans, for whom the gap is greatest. Understanding the patterns of linguistic integration for recent migrant children may help us understand these processes in the case of subsequent movements of children and their families in Europe.

Keyword(s): immigrant children, academic achievement, primary school, "Growing Up in Ireland" study.

Introduction

Educational achievement is important for the successful development of children in terms of their educational careers and post-school pathways. This

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success is unequally distributed across different groups of children, including those from lower socioeconomic status (SES), special educational needs and immigrant backgrounds (Williams et al., 2016). Empirical studies indicate that these groups are disadvantaged in most educational systems in terms of performance and attainment, though the extent of this disadvantage varies (Hillmert, 2013; Heath et al. 2008; Kalter et al., 2018). Increasing migration across the world has increased interest in how immigrants fare in the educational systems of the receiving countries. A report by OECD (2015) has shown that some national-origin groups do better in school while others do not. However, why this is the case is an 'enduring sociological puzzle' (Feliciano, 2005:841), considering varied immigration histories and the characteristics of immigrants in the receiving countries. In broad terms, the educational success of immigrant children is shaped by a complex interplay of individual, micro (e.g., family/school), meso (e.g., interactions between school and parents) and macro (society) level factors.

Much of the work on immigrant achievement and educational experiences is grounded in the theories developed by Bourdieu (1979), particularly the availability of different types of capital and their convertibility (Devine, 2009). According to some studies, cultural capital among some groups of immigrants and their children tends to be strong, leading to a sustained upward drive (Entorf, 2015). Other studies focusing on the involvement of immigrant parents in their children's education indicate that the capitals of these individuals (even among middle- class professionals) do not necessarily have the same 'currency' in schools of receiving countries (Vincent et al. 2012). Support from parents is crucial for immigrant children as it contributes to the socialisation of children in believing in the importance of education (Domina, 2005). Despite their often disadvantaged background, authors have found that immigrant parents tend to have high aspirations for their children's education and greater school engagement (e.g., Rumbaut, 2005). Crosnoe (2013) in the US refers to the immigrant paradox whereby the children of immigrants, in some cases, perform well and even outperform children with native parents. While the parental role is important, it is also necessary to acknowledge the role of a child's own agency in developing high aspirations and success (Saffigna et al., 2010).

While parental education is by far the most consistent predictor of children's academic performance (Schiller et al. 2002), financial and social capitals (including linguistic capital), have been found to have more impact on immigrants' access to educational resources (Tzanakis, 2011). Earlier findings have also indicated that achievement rates differ between national groups, even after controlling for factors such as economic and social capital (Portes and Rumbaut, 2005). Existing research has also highlighted the importance of

'length of stay' in the receiving country for the academic achievement of immigrant children (Di Liberto, 2015). And, of course, much previous research considers migration from non-Western countries a more permanent move: freedom of movement has resulted in very different migration patterns in Europe, more flexible and complex than before, with much lower 'costs' attached to migration (Favell, 2008). These more flexible, temporary migration patterns may have implications for the integration of migrant children.

In addition to the child and family background factors, the educational success of immigrant children is influenced by their experience in schools of the receiving countries. School is the first major formal organisation the child encounters and can be considered the most revealing setting in which to view the relative success or failure of immigrants and their children. Schools can contribute to inequalities of educational resources through school admission policies and procedures, grouping and tracking practices (Darmody et al., 2012). In Western countries schools tend to acknowledge and reward middle-class advantage by perpetuating largely middle-class values. At the same time, the cultural background of immigrant children does not always have a similar 'currency', given language differences and country variation in the formal and informal 'rules' of education systems. Byrne et al. (2010) find that immigrants are more often found in schools with a disadvantaged intake, while McCoy et al. (2014) find that there is an additional negative effect on achievement in Ireland of attending a disadvantaged school, even after taking into account the socioeconomic background of the children.

In order to understand the academic achievement of immigrant children, it is important to consider the context of the receiving country. Considering that much of the existing research has been conducted in 'old' immigrant-receiving countries such as the US and the UK, less is known about factors influencing the academic achievement of immigrant children in countries where large-scale immigration is a relatively new phenomenon, such as Ireland, where much immigration has been from other EU countries.

Unprecedented large-scale immigration to Ireland since the 1990s, coinciding with a remarkable economic boom, transformed Ireland from an immigrant-sending to an immigrant-destination country, with immigration peaking in 2007 (McGinnity et al., 2014). Most new arrivals were from other EU countries, particularly from Eastern Europe, and came to work in Ireland's booming economy: increased immigration was particularly marked following the accession of East European states to the EU in 2004 (*ibid.*). By 2011 Polish nationals made up 2.7% of the Irish population: almost all of them were first-generation migrants. The second largest group were UK nationals, who made

up 2.5%.[2] A substantial number of non-EU nationals also came to work, often in highly skilled jobs, to study or to seek international protection (McGinnity et al., 2020). Many immigrants to Ireland are highly educated, particularly West Europeans and also non-EU immigrants, reflecting immigration policies and access to the labour market (Darmody et al., 2016). Yet existing research in Ireland finds that some immigrants to Ireland fare less well than Irish nationals in the labour market across a range of dimensions, including access to privileged jobs, experiences of discrimination at work and levels of unemployment (Kingston et al., 2013). For these groups, educational qualifications are not matched by wages (in the case of East Europeans, Barrett and McGarthy, 2007), or they struggle to find a job at all (those of Black ethnicity and those who have come through the international protection system) (McGinnity et al., 2020). Of course, parents' educational attainment may influence their children's outcomes more than their lack of financial resources. What is also interesting in the Irish case is that non-EU immigrants from some African countries may be more ethnically distant from the Irish population than EU immigrants and may struggle in the Irish labour market but have better English language skills (McGinnity et al., 2020).

The goal of this paper is to extend our knowledge of the academic achievement of children of immigrants by widening the lens through which their outcomes are examined, moving from immigrant-native comparison to the exploration of outcomes of the national groups and considering the impact of 'free movement' within the European Union. In this paper, we focus specifically on English reading. English is a core subject in the Irish education system, but English reading is also very important for a range of other subjects in the primary school curriculum and is likely to be linked to oral language skills, which are crucial for interactions with both teachers and peers. As a robustness test, we also model children's scores in mathematics.

Based on international research, we hypothesise that:

1) There will be an 'achievement penalty' for immigrant children in Ireland for English reading, as indicated by lower scores on a standardised test, with differences between national/ethnic groups in terms of this penalty (H1).
2) Given the expectation that immigrant children will be more likely to attend schools with a disadvantaged intake, school-level characteristics will partly explain any achievement penalty even when individual socioeconomic characteristics are controlled for (H2).

[2] See https://www.cso.ie/en/census/census2011reports/census2011profile6migrationanddiversity-aprofileofdiversityinireland/ for information. In total, 12 per cent of the population were non-Irish citizens in 2011.

3) Variations in cultural and social capital between immigrant groups will play an additional role in explaining differences in achievement (H3).

The paper seeks to answer the following questions:

1) Do children from migrant backgrounds score worse than children born to Irish parents on a measure of English reading, and does the expected gap in scores vary according to the parental region/country of origin?
2) How much will school-level characteristics such as level of problems reported by the principal, denomination, single-sex versus co-educational schools, and – in particular – being officially designated 'disadvantaged' in an urban area, explain differences in scores for children with migrant backgrounds, over and above individual socioeconomic factors? Socioeconomic difficulties are measured as current financial strain.
3) How do characteristics associated with cultural and social capital (family and child based) affect English reading scores among immigrant children? The indicators of cultural capital include parents' education (especially whether mothers have attained a degree), linguistic background, parental involvement in their child's education and their aspirations for their children. Indicators associated with social capital include the number of parents (one or two) and other children in the household, children's interactions at school, parents' interactions with the school and wider community involvement.

In order to address these questions, this paper examines the academic achievement of 9-year-old immigrant children through the lens of the capital framework drawing on a rich dataset from a child cohort study in Ireland, "Growing Up in Ireland".

The paper begins by discussing theoretical perspectives that guide this paper (Section 2). Section 3 presents the "Growing Up in Ireland" data and methods adopted in this study. Section 4 presents the initial descriptive results, while Section 5 outlines the results of the modelling analysis. Finally, Section 6 offers a discussion that summarises the findings for Ireland and reflects on their wider implications.

Theoretical underpinnings

In order to explore the factors influencing the academic achievement of immigrant children in Ireland, this article draws on cultural reproduction theory, stemming from work by Pierre Bourdieu in the 1970s on the role of the education process in reproducing class inequality. In most countries, there is an academic performance gap between immigrant and native-born students (Entorf, 2015). Factors that contribute to this achievement gap are many and

varied, including differences in economic capital (parental income), cultural capital (educational resources in the home), linguistic capital (language spoken in the home) and age of arrival (ibid.).

Stratification researchers generally agree that immigrant families – many of whom hold lower socioeconomic position – tend to have fewer resources at their disposal to support the academic achievement of their children compared to native parents (Heath et al. 2008).

The socioeconomic disadvantage story may be challenged in a country with recent immigration of a highly educated population. Yet, a high level of educational attainment does not necessarily translate into high occupational positions and well-paying jobs, as evidenced by immigrant over-education in Ireland and elsewhere (Barrett and Duffy, 2008). While the duration of stay may alter the situation of immigrants in the receiving country, not all immigrant groups follow the same trajectory: duration does not matter equally for everyone, and some groups may converge with the host population while others remain disadvantaged (Alba and Nee, 2003). In cultural reproduction terms – some groups are more successful in adopting the cultural capital of the dominant group (native population) and converting this into a social and economic advantage in later life. The amount of cultural capital that children "inherit" from their family of origin will influence their socioeconomic status (Bourdieu, 1979).

Cultural reproduction theory argues that we need to consider a broader range of factors than financial resources alone. Educational systems have been found to reproduce inequalities already existing in society (Sullivan, 2001). To the extent that children attend local schools, geographical concentration of disadvantage can feed into school segregation, with immigrants tending to be concentrated in schools with a poor school climate and learning environment (Kristen et al., 2008). However, other studies (Rumbaut, 2005) show that ethnic concentration may also have beneficial effects in terms of retaining one's language and customs.

While initially formulated in terms of social class, Bourdieu's theory of cultural capital has been expanded by subsequent theorists (see, for example, Lareau and Horvat, 1999) to take account of cultural diversity in terms of nationality and/or ethnicity. These authors suggest that the policies and practices of the school are familiar to students from the dominant (national) group, that is, the 'insiders' who possess this information as a part of their cultural capital, whereas members of immigrant groups who possess different cultural capital, norms and values, are often in the position of 'outsiders' (Bourdieu 1984). For immigrant children, the school is their primary source of contact with the majority culture, and thus an important site for acquiring knowledge

of the lingua franca of the receiving country, culturally relevant knowledge, skills and attitudes of the receiving country (Park-Taylor et al., 2007). Bourdieu (1998) also argues that the 'outsider' status of immigrants may differ across groups since some immigrant families are more likely than others to be in a position to access information on the education system of the receiving country and internalise its cultural preferences (Weine et al., 2004). The 'mismatch', or cultural distance between home and school cultures, may vary across nationalities or linguistic groups, as well as social classes, depending on various types of capitals at their disposal. In addition, immigrant children come to the host country with their own attitudes to learning and learning styles – influenced by practices in the home country – that may be dissimilar to the ones practised in the receiving country (Darmody et al., 2011).

Research studies in the education of immigrant children rarely consider the interaction and conversion of different forms of capital. Yet, it is likely to influence their academic achievement in terms of access to educational resources. It is worth noting, however, that converting one form of capital is not straightforward but is achieved by complex processes (Devine, 2009). Some individuals have more capital and so are dominant over those with less; others may have equal but different compositions of capital at their disposal, which puts them in a different relationship to other individuals or institutions (ibid.).

Bourdieu's work on social and cultural reproduction has frequently been criticised for being overly deterministic (see Jenkins, 2002) and, therefore, at odds with emerging educational research which emphasises the importance of children's voice and agency (see Clark et al., 2003). Later refinements of Bourdieu's framework have allowed for the fluid nature of social reproduction, arguing that 'an individual's class and racial position affect social reproduction, but they do not determine it' (Lareau and Horvat 1999, p. 50). Therefore, we also consider some of the perspectives of young people themselves on their school experiences and regard them as active agents in their own education for understanding their academic achievement. Existing research has indicated that in exploring the academic achievement of immigrant children, it is important to consider ethnic characteristics in terms of culture, attitudes, economic opportunities (Borjas et al., 1992), parental expectations (Rumbault, 2005), teachers' expectations of minority students (Bernstein, 1975) and their misrecognition of minority cultural and social capital (Gibson & Ogbu, 1991), availability of resources (Kingdon & Cassen, 2010) and language proficiency (Turney & Kao, 2009).

Data and method

This article draws on the first wave of this longitudinal study of around 8,500 9-year-olds from the "Growing up in Ireland" Cohort '98 survey. The main aim of the study is to paint a full picture of children in Ireland and how they are developing in the current social, economic and cultural environment. The study combines information from parents, school principals, teachers and children themselves. In doing so, it provides valuable and detailed information about the home environment of these children, their family and peer relationships, their expectations and aspirations and their engagement with the schooling process. The data were collected between September 2007 and June 2008, coinciding with the peak of immigration to Ireland; the majority of children in this study were born in 1998, and some were born in 1997. While the data were collected some time ago, the results are still relevant as they explain the factors that impact on academic performance of immigrant students, as the convertibility of capitals remains an issue for immigrants moving into host countries.

There were two main components to the fieldwork: school-based and household-based. The school-based fieldwork involved a self-completion questionnaire for the school principal and two self-completion questionnaires for the child's teacher. The principal questionnaires recorded school-level details on school characteristics, including size, challenges, ethos and teacher-student relationships in school, along with some personal details about the principal. The teacher-on-child questionnaire recorded child-level details on the child's temperament, academic performance, homework completion, language ability and peer relationships[3]. The final part of the school-based fieldwork involved the academic assessment tests (Drumcondra readings and Maths tests).[4] These tests, developed for Irish school children are linked to the curriculum and are grade-specific[5]. For this article, both maths and reading scores were scaled to have a mean of 100 and a standard deviation of 15.

The informants in the household-based component of the fieldwork were the 9-year-old child, their primary caregiver (mostly mother) and the primary caregiver's resident spouse/partner (usually the child's father). Detailed information was collected from 9-year-old children on their perceptions of school and their teachers. In addition to questions on income, employment and education, parents were asked about their involvement in their child's school. At the school level, a response rate of 80% was recorded. In general, the completed sample was highly representative of the population at the level of

[3] There was also a teacher-on-self questionnaire, but this was not used in this paper.
[4] See https://www.tests.erc.ie/ for details.
[5] Prior to analyses, scores were adjusted according to class level and child's age to be comparable.

school characteristics and gender mix. There was a slight overrepresentation of larger schools and disadvantaged schools. At household level (eligible child selected within the school), a total of 59% of targeted families participated in the study. At family level, the survey slightly under-represents children from a lower social class background and those whose mothers had lower levels of education. These representativeness issues were addressed using re-weighting (Williams et al., 2009).

Immigrant-origin children in the "*Growing Up in Ireland*" study

This paper focuses on the children of immigrants, with data collected at the time when Ireland experienced a significant inward migration. Immigrant children are those whose mother was born abroad and defined herself as ethnically not Irish[6]. Mothers are used as they are often considered the primary educators of their children (Lerner and Grolnick, 2020), though the statistical models estimated also control for whether the child's father, if present, is Irish or not. Countries of birth of the immigrant mother were divided into broad 'country groupings' based on region, cultural similarity and previous work in Ireland[7]. Broad country groupings have been previously applied in other studies (see Finn et al., 2021; Darmody et al., forthcoming). In this article, the countries were divided into the following groups: Ireland, the United Kingdom, Western Europe, Eastern Europe, Africa, Asia, and other Western countries, including South America[8]. Figure 1 presents the proportion of 9-year-olds in each group.

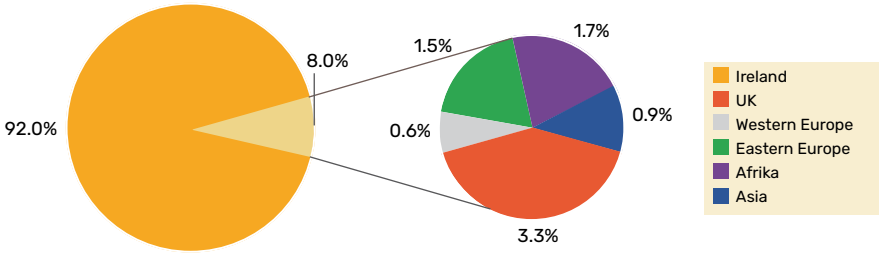

Figure 1. National Groups in the "Growing Up in Ireland" sample of 9-year-olds

Note: Weighted data. 'Other Western' are excluded as the sample size is so small for further analysis.

[6] Their ethnicity could be White, non-Irish; African, Asian, or Other, as in the Census. This rules out Irish people born abroad. The small number of Irish Travellers in the sample are coded as Irish for this analysis.

[7] It is important to note here that the migrants in Ireland are a very diverse group, coming from over 180 countries in 2011 https://www.cso.ie/en/census/census2011reports/census-2011profile6migrationanddiversity-aprofileofdiversityinireland/

[8] The latter group was so small in the sample they were not used for the analysis.

It shows that 8% of children in the sample are classified as immigrants using this definition, with 3.3% having mothers born in the UK, 1.7% having mothers born in Africa, 1.5% in Eastern Europe, around 1% in Asia and 0.6% in Western Europe. Table 1 shows how these groups vary by selected characteristics. Firstly, in terms of achievement in English reading, Irish children's mean score is very close to the overall mean of 100, as are the children of UK mothers. The mean achievement in English reading is somewhat higher for West Europeans (105) and considerably lower for East Europeans (90). African children have a slightly lower mean than Irish children (98) and Asian children (96). Combining all the non-Irish groups gives a mean score of 98[9]. Overall achievement differences are modest. In terms of background characteristics, economic disadvantage is measured using a question about making ends meet or financial strain[10]. Some immigrant groups have great difficulty or difficulty making ends meet. Compared to 7.5% of Irish mothers, 27% of African mothers reported difficulty or great difficulty making ends meet. Two-thirds of East European and half of Asian families have come to Ireland within the last five years. Other groups tend to be in Ireland for longer (see Table 1).

Table 1 shows marked differences in terms of the proportion of immigrant groups and Irish children attending disadvantaged schools. One quarter (25%) of children of African-born mothers go to a school classified as Urban DEIS band 1, compared to 8.5% of children born to Irish mothers.[11] Smyth et al. (2009) also found that immigrant children were more likely to be attending disadvantaged schools (DEIS). Other measures of school characteristics included in the model are the level of problems in the school compared to other schools as perceived by the principal,[12] whether the school is Catholic or non-Catholic, and whether the school is co-educational or single-sex.

9 This difference is small but statistically significant using a one-way Anova test.

10 This measure is used in place of the income quintile for two reasons. Firstly, there are fewer cases missing than in the income quintile. Secondly, this measure captures families struggling to meet financial commitments on current resources as opposed to overall levels of income.

11 Migrant children are also overrepresented in DEIS Urban band 2 schools, which are at an intermediate level of disadvantage: 10% of African children, 15% of East European and 19% of Asian children attend these school types, compared to 6% of Irish children in the sample.

12 The school principal was asked: Compared with other Primary Schools of your size would you say that the scale of day-to-day problems in running the school are? Much greater than in other schools/ Slightly greater/ About the same/ Slightly less/ Much less than in other schools. This measure correlates with disadvantaged status but allows differentiation of non-disadvantaged schools.

Table 1. Immigrant Group by Selected Characteristics (values are percentages apart from achievement score and n of cases)

	Irish (%)	UK (%)	West European (%)	East European (%)	African (%)	Asian (%)
Economic disadvantage*	8	7	2	18	27	12
Family came to Ireland in last 5 years	2	20	18	64	30	49
Disadvantaged school (Urban, Band 1)**	9	1	2	14	25	5
Mothers' expectations (Third level)	70	73	78	80	92	90
Mothers' education (third-level)	32	41	68	45	54	59
Language difficulties (teacher report)***	2	0	6	40	24	36
Household type (one parent)	18	22	6	24	33	5
Achievement score (English reading)	100.19	100.26	104.49	90.54	98.07	95.78
Valid N of cases, achievement (unweighted)	7760	170	63	120	111	87

Source: "Growing Up in Ireland", Child Cohort, weighted. Other Western excluded.

Note: *Difficulty or great difficulty making ends meet.
** Delivering Equality of Opportunity in Schools (*DEIS*), the Action Plan for Educational Inclusion indicates that the school intake is socioeconomically disadvantaged. The variables considered in DEIS allocation include unemployment, local authority accommodation, lone parenthood, Travellers, large families and pupils eligible for free books (see https://www.education.ie/en/Schools-Colleges/Services/DEIS-Delivering-Equality-of-Opportunity-in-Schools-/FAQs.html).

***Teacher reports child has limited knowledge of English language.

As a measure of cultural capital, the study shows very high expectations from immigrant parents, particularly African and Asian parents, 90 plus per cent of whom expect their children to attain a third-level qualification. The proportion of mothers with tertiary education in this sample of mothers is higher among immigrants than Irish mothers. It is particularly high among West Europeans (68%) but also Asians (59%) and Africans (54%), compared to around one-third (32%) of Irish mothers. This partly reflects Irish immigration policy, which restricted non-EU immigration into Ireland post-2004, though even East European mothers have higher levels of education than Irish mothers (see Table 1). Other measures of cultural capital are how many books are in the home (more than 20 compared to less than 20), whether the child participates in cultural activities outside school, whether the parent uses the public library for the child and whether the child has a computer at home. The child was also

asked whether their mother expects them to do well at school, and whether they always like reading.[13] Teachers were asked about language problems hampering learning and whether the child ever has homework not completed. Language problems, as reported by the teacher, differ substantially across the groups (see Table 1). Reports of language difficulties are very high among children of East Europeans (40% of children), also Asians (36%) and then Africans (14%). This is consistent with the fact that East European 9-year-olds are typically more recently arrived in Ireland than African children. In addition, more African immigrants come from an English-speaking background (e.g., Nigeria or South Africa) than East European immigrants, with migrants from these countries reporting high competence level in English (McGinnity et al., 2020).

Social capital indicators relate to the home, school and community environment. There is a measure of parental involvement in local community groups and a measure of the quality of the local environment[14]. Family-based social capital is measured as the number of parents and siblings a child has. In terms of household structure, one-third of African mothers are single parents, compared to 18% of mothers of Irish 9-year-olds, with very low rates of lone parenthood among West European and Asian mothers (see Table 1). School-based social capital is whether the parents attended parent-teacher meetings, whether the child likes their teacher (always), and the number of friends the child has, where one or no friends counts as low.

Modelling achievement in English reading

We now explore whether achievement varies between immigrant groups and to what extent is this linked to the various forms of capital and English reading achievement at 9. The fact that children were sampled within schools means that standard multiple regression techniques are not suitable, as resulting estimates of the standard errors are likely to be too small. We estimate multilevel models of achievement in English reading which explicitly take account of the clustering of children within schools. The multilevel estimates allow us to quantify the proportion of achievement variation at the individual and at school levels. We introduce successive blocks of variables based on our hypotheses – background and economic factors, school characteristics, and cultural

[13] Taking everything into account, how far do you expect the Study Child will go in his/her education or training? High expectations are measured as a degree or higher.

[14] Community involvement is measured in response to the question: Are you involved in any local voluntary groups? Quality of environment is a sum of responses to the following four questions: How common in your area: Rubbish & litter; homes & gardens in bad condition; vandalism; people being drunk/taking drugs, with possible responses: Very common/Fairly common/Not very common/Not at all common.

and social capital. In each case, Irish 9-year-olds are the reference group. Tables 2a and 2b present the model results, the proportion of variance accounted for by individuals and schools, and model fit statistics.

Model 1 shows that for initial scores (that is, without controls), there is no difference in English reading between UK and Irish 9-year-olds, not surprisingly. For others, there are modest differences. The children of West Europeans have slightly higher English reading scores, and those from Eastern Europe, Asia and Africa have lower scores. The findings are statistically significant, and the gap is largest for East Europeans. Hypothesis 1 about variation between groups is supported, though differences are modest.

Hypothesis 2 stated the expectation that differences in scores between children of Irish and migrant parents would be partially explained by school-level characteristics over and above individual-level socioeconomic disadvantage. Controlling first for individual economic strain and working hours (Table 2a, Model 2), we see there are marked effects of financial strain, with children in families experiencing greater difficulties making ends meet and having lower scores in reading (regardless of migrant status). Immigrant group differences are maintained, with little change in the scores for East Europeans, which are still around 9 points lower. The gap between Irish students and Africans is now somewhat lower (now 3.4 points lower) after controlling for background: this group reported the highest levels of financial strain (see Table 1). For Asians, there is little change in the gap between Irish and Asian students between Model 1 and Model 2 (Table 2a). This suggests that family socioeconomic factors account for little variation between immigrant groups, at least as measured as financial strain.

The second part of Hypothesis 2 concerned the effect of school characteristics, given the expectation that children of migrant parents might be more likely to attend schools designated 'disadvantaged'. When school characteristics are added (Model 3 in Table 2a), we find that those in disadvantaged schools have lower scores even after accounting for individual financial strain. Immigrant differences in achievement scores are reduced somewhat, particularly for Africans and also East Europeans (see Model 3). Overall, the effect of socioeconomic background and school characteristics is most pronounced for African children, though modest. For Asians adding school characteristics slightly reduces the gap in English reading between them and their Irish peers. Therefore, Hypothesis 2 is only partially supported: while there is an overall effect of school-level characteristics, they only moderate the gap for one migrant group, and that effect is small.

Table 2a. English Reading Models (ethnicity, social background and school characteristics)

		Model 1: Add ethnicity	Model 2: Add social back-ground	Model 3: Add school charac-teristics
		Estimate	Estimate	Estimate
	Intercept	101.0***	104.75***	103.9***
Mother country of birth	NI & UK	0.68	0.38	0.04
	Western Europe	3.12	2.81	2.45
	Eastern Europe	-9.08***	-9.09***	-8.77***
	Africa	-3.90***	-3.40**	-3.04*
	Asia	-4.50***	-4.85**	-4.67**
	Irish (ref)	0	0	0
Gender (ref: boy)	Girl		0.46	0.45
Length of time in Ireland (ref: born in Ireland)	Last year		-3.02	-3.12
	1 to 5 years ago		0.76	0.71
	6 to 10 years ago		1.69*	1.64*
Primary Caregiver working hours (ref: <35 hrs)	Works more than 35 hrs p/w		0.30	0.27
Ease of making ends meet (ref: very easily)	Great difficulty		-9.86***	-9.31***
	Difficulty		-6.42***	-5.93***
	Some difficulty		-5.16***	-4.78***
	Fairly easily		-3.18***	-2.95***
	Easily		-1.89**	-1.79***
School problems (ref: average	Greater than average			-1.06
	Slightly greater			-0.71
	Slightly less			1.48*
	Less than average			2.59***
	Problem info missing			5.08***
DEIS status (ref: rural DEIS or non-DEIS)	DEIS Urban Band 1			-5.23***
	DEIS Urban Band 2			-2.75***
School denomination (ref: Catholic)	Non-Catholic school			4.56***
School gender mix (ref: mixed)	Boys only			0.89
	Girls only			1.1
Individual level variance		185.71	183.44	183.6
School level variance		29.51	26.72	20.96
-2 log likelihood		65778	65619	65500
Degrees of freedom		7	17	27

Note: Significance levels: *=p<.05. **=p<.01. ***=p<.001.

Hypothesis 3 predicted that variation in social and cultural capital for children born to migrants would partially explain gaps in English reading scores. These are addressed in the models presented in Table 2b. Model 4 adds a range of variables to try to capture cultural capital. As expected, mothers' encouragement and, in particular, mothers' expectations of attainment have a strong association with reading scores overall. Children whose mothers have high expectations have, on average, 7 points higher reading scores – than children whose mothers had lower expectations. Having more than 20 books in the home, participating in cultural activities, having a computer and using the library are all associated with higher reading scores. For mothers with third-level qualifications, there is a gain of 3 points in reading, though mothers' education is also strongly linked to aspirations and home learning environment. Children whose teachers report difficulties with the English language score 11 points lower on average.

In Model 4, with these additional factors, the West European advantage is reduced: their higher scores are explained by the higher cultural capital of this group. For East Europeans, the gap in English reading is substantially reduced when we account for cultural capital. It is now just under 5 points lower. After accounting for cultural capital, the gap between African and Asian children and Irish children is small and marginally statistically significant.

When social capital is added (Model 5), we find that having one or no friends is also associated with lower test scores. Children from one-parent families also have significantly lower scores in reading, even after controlling for socio-economic background. Having fewer siblings is associated with higher reading scores. After accounting for individual differences, there is no effect of living in a disadvantaged community. After accounting for cultural and social capital, the only significant difference between immigrant groups is now between East Europeans and Irish children, and the difference is much reduced compared to Model 1. Hypothesis 3 is broadly supported, i.e., part of the achievement difference is accounted for by differences in cultural and social capital by migrants, though some measures of cultural and social capital play more of a role than others.

Table 2b. English Reading Models (adding cultural and social capital)

		Model 4 Add cultural capital	Model 5: Add social capital
		Estimate	Estimate
	Intercept	88.74***	89.54***
Mother country of birth	NI & UK	0.51	0.64
	Western Europe	1.7	1.75
	Eastern Europe	−4.61***	−4.42**
	Africa	−2.23	−1.83
	Asia	−2.42	−1.96
	Irish (ref)	0	0
Mother encourages child at school (ref: sometimes/never)	Always	1.66***	1.77***
PCG expectations of child qualification (ref: below degree level)	Expects degree or higher	7.23***	7.18***
Number of children's books in the home (ref: 20 or fewer)	More than 20 books	3.3***	3.28***
Child participates in cultural activities outside school (ref: no)	Yes, cultural activities	1.33***	1.34***
Child has computer at home (ref: no)	Has computer	1.97***	1.94***
PCG uses public library for child (ref: no)	Yes, uses library	1.3***	1.22***
Educational level of PCG (1 to 5 – basic to postgrad)	PCG education	3.36***	3.29***
Teacher reports problem with language of instruction	Language problem	−10.86***	−10.66***
	Language info missing	−1.00	−1.02
Child likes reading (ref: never or sometimes likes)	Always likes reading	4.31***	4.54***
Problem completing homework (ref: always completed)		−3.93***	−3.95***
	missing info	1.39	1.47
PCG involvement in local community groups (ref: not involved)	Involved		0.4
Quality of local environment (ref: not in bottom quartile)	Bottom quartile		0.05
PCG attended formal meeting with teacher (ref: no)	Attended meeting		−0.2
Number of friends child has (ref: 2 or more)	None or 1 friend		−1.24*
Resident spouse/partner (ref: no)	Yes		−0.15
Father's origin(ref: not Irish)	Irish		−0.16
	missing info		−0.24
Number of siblings (ref: 2 or more)	None or 1 sibling		0.77**
Likes teacher (ref: sometimes/never)	Always likes		
Individual level variance		151.7	150.69
School level variance		16	16.02
-2 log likelihood		63347	63376
Degrees of freedom		39	48

Note: Model also includes controls in previous models for social background and school characteristics. Significance levels: * = p<.05. ** = p<.01. *** = p<.001.

Applying the same model to mathematics, we find a slightly different pattern of results (presented in an online Appendix). For mathematics, there is no penalty for the children of East European mothers, even before controls. There is an initial modest difference between the children of African mothers and Irish children (–2.7 points), but this disappears once we control for background characteristics, including financial hardship. Once cultural and social capital differences are accounted for in the model, East European children actually have higher mathematics scores than Irish 9-year-olds: other groups do not differ significantly from Irish children. As with English reading, we find the UK and particularly West European children of highly educated mothers do worse in mathematics relative to Irish children of highly educated mothers, but the children from a lower educational background do better than their Irish counterparts. This effect is not found in other national groups.

Discussion and conclusions

Children of immigrants have been seen as the fastest-growing segment of the youth population in countries across the world and the educational attainment of immigrant children has been investigated in a growing number of studies. This body of research, mostly originating from the United States, has indicated that educational success tends to vary across national groups (Portes & Rumbaut, 2001). The explanations for these group differences have been noted to include financial and human capital, family structure, community resources, cultural relations, as well as external factors such as racial stratification and economic opportunities (Zhou, 1997). This paper aims to extend our knowledge of the academic outcomes of children of a highly educated heterogeneous group of immigrants in Ireland. As a new immigrant-receiving country, Ireland and its education system had little experience of ethnic and cultural diversity: the largely White Irish population were educated in predominantly Catholic primary schools. The arrival of a substantial number of immigrants from a large number of countries challenged this education system. Using data from "Growing Up in Ireland", a study based on a nationally representative sample of 9-year-old children, the present study extends prior research on the academic outcomes of immigrants' children by examining whether there is an achievement penalty for them in an English reading test. Given the large number of origin countries, children were grouped into broad regions, according to their parent's country of origin.

The first hypothesis, "There will be an 'achievement penalty' for immigrant children in Ireland for English reading, as indicated by lower scores on a

standardised test, with differences between national/ethnic groups in terms of this penalty.", was broadly supported although the gaps in scores between children of Irish-born parents and others were not as great as anticipated. While in some West European countries, it is children of parents from countries outside Europe that experience the biggest challenges to linguistic integration (Kalter et al., 2018), in Ireland, the largest deficit was observed for children whose parents could be broadly described as Eastern European. It is of note, though, that no achievement gap was observed between Irish and Eastern European children in terms of mathematics.

Previous research has indicated that inequalities in educational stratification and occupational achievement are reproduced via schools (Bourdieu & Passeron, 1977) and that school composition is one of the key areas responsible for schools' differences in overall academic success (Karvonen et al., 2018). When schools are segregated by their socioeconomic status (SES), they may differ in many ways, including teacher quality, staffing ratios, school climate, and teachers' expectations. Previous research has found that the average SES for a school's student body has a contextual effect on achievement and dropout rates, over and beyond the effects of individual students' background characteristics (Rumberger & Willms, 1992). In Ireland, earlier research had found that immigrant children are overrepresented in disadvantaged urban schools (see Smyth et al., 2009). The second hypothesis, "Given the expectation that immigrant children will be more likely to attend schools with a disadvantaged intake, school-level characteristics will partly explain any achievement penalty even when individual socioeconomic characteristics are controlled for.", was only partially supported. While there was an overall effect on reading scores for school and individual-level characteristics, the pattern of gaps between groups of children categorized according to the birth country of a parent was largely (though not entirely) unaffected. Immigrants from Western Europe in Ireland are least likely to attend disadvantaged schools, while Eastern European and particularly African immigrant-origin children are more likely to do so, thus supporting H2, though once again, the role in explaining differences in achievement is modest.

While children's academic success is shaped by a number of factors, various studies refer to the importance of parental background and characteristics. It is important to understand how the resources parents arrive with (such as a university education obtained in their home country) and the resources available in their host country impact on academic achievement of immigrant children. This paper shows that family financial strain has a clear negative effect on reading achievement, though its role in understanding the differences between immigrant groups is very small.

The third hypothesis, "Variations in cultural and social capital between immigrant groups will play an additional role in explaining differences in achievement (H3).", was largely supported. Adding a wide range of indicators of cultural and social capital – especially the former – had a distinct 'levelling' effect on English reading scores such that only children of Eastern European parents remained significantly different to children of Irish parents, and with that gap also notably attenuated.

Perhaps the largest part of the difference between groups is accounted for by differences in social and particularly cultural capital, though some measures have a much stronger association with reading than others. This role of social and cultural capital differences is particularly the case for East Europeans, for whom the gap in English reading is largest in Ireland. An important measure of cultural capital is parents' English-language proficiency. Parents who have difficulty with the English language are less likely to adopt strategies that contribute to academic achievements, such as reading at home, watching educational television, going to the library, or visiting museums (Pong & Landale, 2012). A foreign language spoken at home is the single most important factor associated with the educational gap (Dustman *et al.*, 2012). The current study showed that low English language proficiency has significant impact on reading scores, particularly for Eastern Europeans, many of whom came to Ireland in the five years preceding the survey. Given many of these families are recent migrants, it could be that these children rapidly acquire English language skills the longer they stay in Ireland. Indeed, a recent study of the children of migrant parents born in Ireland found that the children of East European parents made rapid progress in English language development between the ages of three and nine (Darmody *et al.*, 2022).

One of the remarkable findings of this study is the high expectations of immigrant parents regarding their children's educational success. A significant proportion across national groups expect their child to reach third-level education. Recent immigrants may have greater faith in the use of education to achieve upward mobility than their more established racial or ethnic minority peers in the second or third generation (Gibson & Ogbu, 1991). Whether these high parental expectations can overcome the (albeit modest) disadvantage in achievement that immigrant children face remains to be seen. This first wave of this data allowed us to understand the dynamics of the convertibility of different capitals in children, many of whom were recent migrants from other European countries. The findings may be useful for understanding the likely challenges faced by migrant children, their families and their host countries, following recent large movements of refugee children in Europe.

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