

Family Separation and Reunification as a Factor in the Educational Success of Immigrant Children

T.H. Gindling and Sara Poggio

In Central America and Mexico, it is common practice for a mother or father (or both) to migrate to the United States and leave their children behind. Then, after the parents have achieved some degree of stability in the host country, the children follow. Using qualitative and quantitative methods, we examined the hypothesis that separation during migration results in problems at school after reunification. We found that children separated from parents during migration are more likely to lag behind their peers academically, and are more likely to drop out of high school.

Keywords: Migration; Education; Children; Family Separation; United States; Central America and Mexico

Introduction

One in five children of school age in the United States is an immigrant or child of immigrants (The Urban Institute 2006). These children face special challenges and opportunities in school. On the positive side, immigrant children recognise the sacrifices they and their parents make for their benefit, and many are therefore highly motivated to succeed academically (Rumbaut 2005). On the other hand, the challenges that immigrant children face include a lack of English proficiency, culture shock and the often low socio-economic status of their parents (Suárez-Orozco *et al.* 2008).

We hypothesise that another common factor in the migration experiences of many recent immigrant children may also contribute to the difficulties some of them face in school, namely separation from their parents during migration. For many immigrants, especially those from Central America and Mexico, it is common for

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a mother and/or father to migrate to the US and leave their children behind in the care of relatives or family friends. Then, after the parent(s) have achieved some degree of stability in the host country, the children follow (Suárez-Orozco *et al.* 2002). The trauma, grief and disruptions caused by the separation, migration and reunification of families can have profound negative psychological effects on children and their parents (Schen 2005; Smith *et al.* 2004). It is therefore reasonable to hypothesise that separation during migration will also result in problems at school after reunification.

We used a mixed-methods research design with qualitative and quantitative phases included in the overall research study. The first stage was qualitative, and focused on the state of Maryland. This stage included in-depth, non-structured interviews with school counsellors and psychologists and two focus groups with the parents of Latin American immigrant children from whom they had been separated during migration. While we gained many insights from the interviews and focus groups, the samples were small and might not be representative of Latin Americans, or other immigrants, in the population as a whole.

The second stage was a quantitative, multiple regression analysis of data from the New Immigrant Survey, a nationally representative survey of new legal immigrants conducted by the Office of Population Research at Princeton University. While the samples used in the qualitative analysis were composed only of Latin American immigrants in Maryland, the quantitative analysis examines nationally representative samples of Latin American immigrants, and also of immigrants from other regions of the world. Using the nationally representative sample in the quantitative analysis allowed us to test whether there is evidence from this survey that the insights gained from the qualitative analysis of Latin American immigrants in Maryland can be generalised to the Latin American immigrant population, and the broader immigrant population (both Latin American and others) in the country as a whole. Specifically, we present statistical tests for the impact of family separation on two measures of the educational success of the children of immigrants: the education gap (for 6–18-year-olds) and high-school dropout rates (for 18–22-year-olds).

In the final qualitative stage of our research, we conducted an additional focus group with Latin American immigrant parents, and an anonymous online survey of teachers in Maryland schools. These two methods provided a richness not available in the quantitative data, and insights into the interpretation of the quantitative results. For example, in the quantitative analysis we find that children separated from parents during migration are more likely to be behind others their age in school compared to children who migrated with their parents, but we cannot determine why this is so. Therefore, in the qualitative analysis, we asked teachers and parents for their impressions of why this should be the case.

Literature Review

The existing literature on immigrant children rarely distinguishes between immigrant children who migrate with their parents and those who are separated from their

parents during the migration process. Yet studies that have made this distinction indicate that it is a common phenomenon in migration to the US (Suárez-Orozco *et al.* 2002, 2008).¹ In our work, we carefully distinguish between children born in the US of recent immigrant parents, children born abroad who migrated with their parents, and children born abroad who were separated from their parents during the process of migration. Literature from a variety of disciplines, including psychology, sociology and economics, leads us to suspect that separation during migration will have a further negative effect on educational attainment that goes beyond any negative effect on child migrants in general.

Relationships between parents and children in early childhood can affect a wide range of behaviours later in life. Attachment Theory, for example, argues that disruptions in 'affectional bonds' with parental figures (especially mothers) can have profound negative psychological and developmental implications later in life. The loss of this bond with parents triggers grief responses that affect behaviour. Young children can interpret this separation as a complete loss of parents' love and protection; during migration, in particular, it can lead to emotional distress and have an impact on later relationships and behaviour. It is particularly problematic when the child is young (Ainsworth 1989; Winnicott 1958).

Immigrants in general experience 'ambiguous loss' in relation to friends and family members (Boss 1991). Ambiguous loss, which is part of any immigration experience, is defined as the impossibility to mourn and heal after losing a loved one who is physically absent but psychologically present—friends and relatives who are alive but no longer interact with the immigrant. Immigrant children have to deal with ambiguous loss after their mother or father leaves them, and when they have to leave their caregiver and extended family and friends in the country of origin. This burden that immigrant children bring to their new country and new school can become a significant constraint on their success at school. The emotional impacts of separation and reunification are further complicated by pre-and post-arrival events and conditions that the child experiences in relation to his or her particular family situation.

It is reasonable to expect that school performance in the country of origin will also be affected by the sense of ambiguous loss that children have to endure (Miranda 2007). In some cases the child who is expecting to be reunited with his/her parents in the US will not be concentrating enough on learning in the local school. Children with a family member in the US may also be more likely to see migration, rather than education, as the route to higher earnings. They are therefore less likely to find schooling in the home country to be worthwhile, and more likely to underachieve educationally while separated from their parents (Amuedo-Dorantes 2008; McKenzie and Rapoport 2006; Miranda 2007; Sawyer *et al.* 2009).

The emotional distress that immigrant children may experience before their arrival may complicate their adjustment to family, school and culture in the US. Early studies showed that families tend to be negatively affected by the experiences of immigration. Relationships between parents and children, in particular, can become

conflictive until the family dynamic is restored (Sluzki 1979). The literature on the adjustment of immigrant children to the host society suggests that such adjustment is a complex process that is likely to differ for immigrant children with different characteristics. For example, Portes and Rumbaut (2001) present evidence that the impact of many variables affecting the educational success of immigrants is different for boys and for girls. Some studies also suggest that age at migration is a factor. For example, because language acquisition becomes more challenging as children age, adaptation to a new language, culture and educational system will be more difficult for children who migrate when they are older (Chiswick and Miller 2008).

A recent similar study to ours is described in Suárez-Orozco *et al.* (2008). The authors collected longitudinal (1999–2002) data on 407 recently arrived immigrants aged 9–14 in 1997 in San Francisco and Boston (the Longitudinal Immigrant Student Adaptation, or LISA, study). They used a mixed-method (qualitative and quantitative) approach to study many aspects of the lives of immigrant children, including the factors that apparently affect their educational success. Our paper adds to this literature in that we explicitly tested for an impact on academic performance of separation during migration.

Phase 1: Qualitative Approach

Our research was designed to use mixed methods to approach the phenomena under study from different angles in the same way that we used different disciplines to broaden our knowledge about the effects of migration and separation on children's lives. Our first qualitative stage includes interviews with professionals from the health and education professions and focus groups with mothers of children who have been separated from their family for two or more years.

Interviews with Psychologists

We interviewed three psychologists from Johns Hopkins University who were treating immigrant families at the Catholic Hispanic Apostolate in Baltimore, Maryland. These professionals were interviewed as key informants, a technique of data collection used to get a general perspective of the problem under study from individuals who have specific knowledge that cannot be found in the literature. The main requirement for the selection of key informants was their experience of working with Latin American immigrant families in Maryland. We held individual and open interviews about the children, and their challenges and difficulties in adjusting to Maryland schools. **The psychologists noted that family separation has a negative impact on the mental health of family members—mothers, in particular, often experienced depression and/or physical illness. While most of the patients who had been, or were currently, separated from their families during migration were mothers, the few children who were seen also reported being depressed as a result of family separation.**

Interviews with School Counsellors

We interviewed three counsellors in the International Counselors Office of the Prince George's County Maryland Public School system, a school district with a large and growing population of immigrant students from Latin America. The counsellors believed that separation during migration, and subsequent reunification, had a negative impact on the educational success of high-school students. They also noted that problems at school tended to show up in those who migrated as teenagers more than in those who migrated at a younger age. Children who were younger when reunited were described to be generally respectful of authority, and to have more easily adapted to a new school. On the other hand, those who were reunited as teenagers were described as more often disrespectful, and as having a difficult time integrating into the academic and social life at school.

The information provided by the key informants was consistent with the literature on the effects on children of separation from their mothers (Ainsworth 1989; Miranda *et al.* 2005; Winnicott 1958) and the effects of immigration on individual and family relations (Boss 1991; Sluzki 1979). It was also consistent with our hypothesis that children separated from their parents during migration will have more difficulties when attending school in the US.

Focus Groups

The main aim of the focus-group discussions was to gather the parental perspective on the effects of separation in their lives and their children and to see whether the impact of separation on their children's school achievement was known to them. The discussions were organised around the following themes:

- How did the parents react to separation from and reunification with their children?
- How did the children react to separation from and reunification with their parents?
- Did separation during migration have negative consequences for the children's school performance?

We conducted two focus groups with the Latin American parents of Hispanic students in Baltimore City. The first focus group consisted of eight parents (seven mothers and one father) and the second of six mothers. To participate in the focus groups we required that parents had been separated from their children for at least two years before reunification, and that at least one child was, at that time, attending school in Maryland. Participants were recruited by Evelyn Rosario of the Hispanic Apostolate of Baltimore—where the focus groups took place—through flyers handed out at the Apostolate and in local churches.

The parents agreed that the separation from their children had negative psychological consequences for both children and parents. They agreed that children are more affected by separation from their mothers (compared to fathers). Reunification with parents is followed by a short period of euphoria which, in turn, is almost always followed by problems with family relationships and discipline. Often the mother or father has formed a new family in the US, and it is not uncommon for the immigrant child to enter a family with siblings who have been born in the host country. Parents report that new family members—husbands and siblings—find it difficult to accept the immigrant child, who feels that he or she is the stranger; thus it is difficult for the child to accept authority from the mother or the new relatives.

Mothers reported that children who were reunited with their parents at a younger age were respectful of parental authority and responsive to strong positive parental expectations regarding school. In contrast, those who reunited as teenagers were resentful, disrespectful and hard to control. As one mother said, ‘Young children suffer, but they do what their parents tell them to do’.

While parents were aware of the emotional turmoil that separation caused in their children’s lives, their discussion focused on emotional and behavioural problems, without much emphasis on academic performance. **They noted that their children often have problems at school, but they tended to blame them on discrimination from teachers or other children rather than on separation.**

At the end of the discussion, parents were asked if they were satisfied with their migration decision. **To our surprise, most said that the pain and disruption caused by family separation were so great that they doubted whether they would have migrated at all if they had known at the start what they now know.**

Phase 2: Quantitative Analysis

The literature does not explicitly address the question of whether children separated during migration will have more problems in school. In the qualitative analysis, school counsellors believed that separation during migration had a negative impact on the educational success of high-school students, but the parents and psychologists did not explicitly identify problems at school as a key result of separation. However, it is reasonable to suspect that children who experience emotional or behavioural problems are also likely to have difficulties in school.² In the quantitative stage of our research we used a nationally representative survey of recent immigrants to specifically test the hypothesis that children separated during migration have less educational success (are behind others in school or are more likely to drop out) when compared to children who immigrated with their parents or the US-born children of immigrants. Both the literature reviewed and the data collected in the first qualitative phase confirm this.

They also lead us to expect that the negative impact of separation will be greater for separation from the mother (compared with separation from the father). Our

focus-group and interview results lead us to suspect that the negative emotional (and therefore educational) impact of separation will be greater for those who migrated at older ages—especially teenagers—and undocumented immigrants. In the quantitative analysis, therefore, we disaggregate our estimation into the impact of separation on children who migrated at different ages, on children with documented or undocumented parents, and on children separated from their mother or father.

Data

We used the New Immigrant Survey (NIS), a public-use database of new legal immigrants to the US and their children. The survey was conducted by the Office of Population Research, Princeton University (see Jasso *et al.* 2008.) A 4 per cent sample was collected of all who received Legal Permanent Residence (the ‘green card’) in the period May–November 2003. This resulted in data on 8,573 new immigrant families collected from June 2003 to July 2004. Data were collected on the families of three types of immigrant: new arrivals, adjustee immigrants³ and children adopted from abroad. Because we are interested in studying children who could have been separated from their parents during the migration process, the units of analysis in our empirical work are the children of adult adjustee immigrants living in the US with at least one biological parent, and aged between 6 and 22 years old (with different age groups depending on the measure of educational success we are using). In our analysis we compare immigrant children who were separated from parents during migration with two ‘control’ groups: immigrant children who migrated with their parents and the children of immigrants born in the US. Because we expect the impact of separation to differ depending on the region of the world from which the immigrants come, and because the focus of our qualitative analysis is immigrants from Latin America, we divide our sample into three groups: Latin Americans, Asians and others.⁴

We identify the children using the answers to questions on the demographic and migration questionnaires which were administered to all immigrants and their spouses (if available). Children separated during migration were identified by comparing the year of the most recent entry of the immigrant parents with the first year in which the child entered the US. Children who were separated from at least one parent for two years or more are considered separated during migration. Slightly over 50 per cent of children in our sample were born in the US, 34 per cent migrated with their parents and 15 per cent were separated from their parents during migration (see Table 1). There were substantial differences in these patterns depending on region of origin. Latin American children are much more likely to have been born in the US, while Asian and others are much more likely to have migrated with their parents. Latin American children are also more likely to have been separated from their parents during migration—45 per cent of Latin American immigrant children in our sample were classified as separated from parents during migration, compared to less than 30 per cent for Asians and others.

Table 1. Immigration experiences of children, by region of origin

		% of all children of immigrants			
Immigration experience	All	Latin American	Asian	Others	
Born in US	50.7	72.6	17.7	20.1	
Migrated with parents	34.0	15.2	59.1	62.9	
Separated during migration	15.3	12.2	23.2	17.0	
Number of observations	1,772	1,050	328	394	
		% of immigrant children			
Immigration experience	All immigrants	Latin American	Asian	Others	
Born in US	—	—	—	—	
Migrated with parents	69.0	55.5	71.8	78.7	
Separated during migration	31.0	44.5	28.2	21.3	

We expected that the impact of separation would differ depending on whether the child and/or their parents were undocumented. In the New Immigrant Survey data there is no information on the legal status of the children, but we could identify children whose parents were undocumented before receiving their green cards (see Jasso *et al.* 2008): on average, 51 per cent. The proportion of Latin American children in this category is close to 80 per cent, much larger than for immigrants from any other region of the world.

Results

In this paper, we present statistical tests for the impact of family separation on two measures of the educational success of the children of immigrants: the education gap (for 6–18-year-olds) and high-school dropout rates for 18–22-year-olds.

The Education Gap

We borrow the concept of the education gap from Behrman *et al.* (2000). We consider a child to have an education gap if he or she is significantly older than other children in the grade (that is, compared to those who entered school at the appropriate age and then moved on to the next grade each year thereafter). Because the age of entry into school differs between countries, states and even school districts, we err on the side of caution and identify children as having an education gap only if they are clearly older than they 'should' be. Specifically, we classify a child as having an education gap if they are at least eight years old and still attending first grade, at least nine years old and attending second grade, etc. Whether or not children are 'on grade' given their age is often used as a proxy for grade retention and is a common measure of educational success in the education literature (i.e. Cascio 2005; Fitzpatrick 2008). The education gap is measured for children between 6 and 18 years old who are at least in first grade.

Table 2. Percentage of education gap for children aged 6–18 years, by immigrant status and region of origin

	US-born	Migrated with parents	Separated during migration	Sample size
All immigrant children	4.7	4.9	12.1	1,753
Latin Americans	5.3	6.4	16.7	1,042
Asians	0.0	2.1	9.5	322
Others	2.5	5.7	6.2	389

In this sample, children separated from their parents during migration were much more likely to have an education gap than immigrant children either born in the US or who migrated with their parents (see Table 2). On average, 12.1 of children separated from parents during migration have an education gap, compared with 4.7 per cent for those born in the US and 4.9 per cent for those born abroad but who migrated with their parents. There are no significant differences between the children born in the US and those who immigrated with their parents.

In order to examine whether there are other factors that could explain the difference in the occurrence of an education gap between those separated during migration and those who migrated with their parents, we used regression analyses. The dependent variable is a dummy variable that is 1 if the child has an education gap and 0 otherwise. The independent variables include a dummy variable identifying children who migrated with their parents, a dummy variable identifying children who were separated from their parents during migration, and other variables that might affect the educational success of immigrant children, including: region of origin; socio-economic status; years of residence in the US; whether or not the child lives in a two-parent family; the gender and age of the child; whether or not the immigrant parent was undocumented prior to receiving the green card; the English proficiency of the parents; and the age at which the child migrated. The coefficients on the independent variables in this regression can be interpreted as the change in the probability that a child has an education gap given a change in the independent variable (holding the other independent variables constant).

Table 3 presents the results from an education gap regression using data for all children of immigrants. The coefficient on the dummy variable indicating whether the child migrated with his or her parents measures the difference in the probability that a child has an education gap between children who immigrated with their parents and US-born children. The coefficient on the dummy variable indicating whether the child was separated from the parents during migration measures the difference between children separated from their parents and US-born children. For example, the results presented in Table 3 suggest that, after controlling for other influences, the probability that a child has an education gap is 3.5 percentage points higher for those who were separated during migration compared to the US-born. To calculate the difference in the probability of an education gap between those who

Table 3. Education-gap regression

Explanatory variable		
<i>Immigration variables (reference group is US-born)</i>		
Immigrated with parents	-0.003	(.02)
Separated during migration	0.035	(.026)
<i>Region of origin</i>		
Latin America	-0.018	(.02)
Asia	-0.007	(.015)
<i>Parents' education dummies (excluded category is none)</i>		
Elementary	0.011	(.057)
Middle/junior high	0.003	(.062)
High school	-0.022	(.018)
Associates	-0.018	(.04)
Bachelor's	-0.065	(.016)***
Master's	-0.028	(.025)
Doctorate	0.038	(.033)
JD/MD	0.015	(.05)
<i>Parents' occupation dummies</i>		
Manager	-0.010	(.02)
Professional and technical	0.005	(.015)
Years of residence	-0.003	(.003)
Trad. family (1 = child lives w. both bio parents; 0 = other)	-0.029	(.018)
Gender (1 = male; 0 = female)	0.020	(.012)*
Age	0.107	(.003)***
Parent undocumented before green card	0.049	(.019)***
Parent's English (1 = v.good; 2 = good; 3 = fair; 4 = poor)	0.003	(.005)*
Teen migrant (1 = migration at > 12 years; 0 = < 12)	0.051	(.04)
Intercept	-0.033	(.034)
R-square	0.0696	
Number of observations	1,545	

Notes: Dependent variable: education gap = 1; estimated with Ordinary Least Squares (Linear Probability Model); standard errors are robust to heteroskedasticity; *significant at 10 per cent; **significant at 5 per cent; ***significant at 1 per cent.

were separated from their parents and those who migrated with their parents, we subtract the two coefficients. The results presented in Table 3 suggest that the difference is 3.8 percentage points.

Table 4 presents the results of estimates of the impact of separation on different categories of children of immigrants. The first column presents the coefficients that measure the difference between children who migrated with their parents and US-born children in the probability that a child demonstrates an education gap. The second column presents the coefficients that measure the difference between children separated from their parents and US-born children. The third column is the most important one for our purposes; it presents our measures of the difference in the probability of an education gap between those who were separated from their parents and those who migrated with their parents. The significance level reported is for a one-tailed test of the hypothesis that the education gap is larger for those who were separated during migration than for those who migrated with their parents.

Table 4. Impact of separation during migration on the education gap

Group	Migrated w. parents ²		Separated during migration ²		Difference ^{1,2}
	(Compared to the US-born)				
All	-0.003	(.02)	0.035	(.026)	0.037*
<i>By region of origin</i>					
Latin America	-0.056	(.039)	0.001	(.045)	0.057*
Asian	-0.004	(.019)	0.035	(.029)	0.039
Other	0.004	(.037)	0.012	(.043)	0.008
<i>Gender</i>					
Girls	0.002	(.024)	0.050	(.035)*	0.048**
Boys	-0.010	(.031)	0.021	(.038)	0.030
<i>Legal status of parents before receiving a green card</i>					
Undocumented	-0.010	(.036)	0.072	(.04)*	0.082*
Documented	-0.017	(.021)	-0.006	(.026)	0.011
<i>Age at migration</i>					
0-6 years	0.002	(.023)	0.014	(.03)	0.012
7-11 years	-0.013	(.051)	0.029	(.062)	0.042
12-18 years	0.008	(.008)	0.117	(.091)	0.110*
<i>Age at separation</i>					
0-6 years	-0.007	(.022)	0.002	(.027)	0.009
7-11 years			0.017	(.047)	0.024
12-18 years			0.086	(.084)	0.093
<i>Age</i>					
6-12 years	0.019	(.022)	-0.005	(.021)	-0.025
13-18 years	-0.058	(.04)	0.026	(.051)	0.084***

Notes: *significant at 10 per cent; **significant at 5 per cent; ***significant at 1 per cent.

¹Significance levels for the difference are for the hypothesis that the coefficient on separated during migration is greater than the coefficient on migrated with parents.

²Standard errors are robust to heteroskedasticity.

Our results confirmed the advanced hypotheses. First, for every subset of the data, the probability of an education gap is larger for those separated during migration than for those who migrated with their parents or those born in the US, while there is no significant difference for those who migrated with their parents and those born in the US. The impact of separation during migration (compared with migrating alongside parents) on educational success is greater for children from Latin America compared to those from Asia and other areas of the world, for children whose parents were undocumented prior to receiving their green card, and for girls rather than for boys.

The impact of separation is also greater for children who migrated at older ages or who were separated from their parents during their teenage years. For example, among children who migrated as teenagers, those separated from their parents have a probability of an education gap that is 11 percentage points higher than for teenagers who migrated *with* their parents (compared to a difference of only 1 per cent for those who migrated before they were six years old). We suspect that these age results reflect the probability that children who were separated from their parents and then

reunited at older ages are likely to have been separated for a longer period of time, compared to those who reunited with parents at younger ages. That is, the results may not reflect the *impact of age* but rather *the impact of a longer separation* from parents. To test this possibility we re-estimated the education gap regression, adding a variable that indicated the number of years a child was separated from at least one parent. The coefficient was not significant (and negative) at any reasonable level of significance (the separation dummy variable remained positive and was statistically significant). In other words, the regressions results suggest that the impact of separation does not become greater the longer the child is separated from the parents, but, rather, that the age at which children are separated from their parents has the biggest influence.⁵

Consistent with the results that suggest that the impact of migration is the greatest for teenagers, we find a stronger impact of separation on the education gap for children who are currently 13 to 18 years old (compared to 6–12-year-olds). In fact, the impact of separation for those under 13 is not statistically significant and not of the expected sign, suggesting that separation has an impact on the education gap, but only for older migrants.

Table 5 presents the results of regressions that examine whether the impact of separation differs depending on whether the separation is from the mother, from the father or from both parents. The first two rows show that the impact of children's separation from both parents is greater than that from only one parent—and an education gap that is predicted to be 0.072 higher. For Latin American immigrants, this difference is 0.084. Both differences vary significantly from 0 at a 10 per cent significance level. If children are separated from only one parent, that parent is generally the father. Therefore, this result suggests that the negative impact of separation on the education gap is greater when the child is separated from his/her mother rather than the father. The last two columns of Table 5 confirm this.

Table 5. Impact of separation during migration on the education gap, compared to the US-born

	Migrated with parents		Separated from one parent during migration		Separated from both parents during migration	
From education-gap regressions						
All immigrants	-0.003	(.02)	0.021	(.026)	0.093	(.059)*
Latin Americans	-0.057	(.039)	-0.019	(.045)	0.065	(.088)
	Migrated with parents		Separated from father during migration		Separated from mother during migration	
From education-gap regressions						
All immigrants	0.022	(.021)	0.043	(.024)*	0.053	(.04)
Latin Americans	0.000	(.041)	0.015	(.039)	0.100	(.074)

Notes: *significant at 10 per cent; **significant at 5 per cent; ***significant at 1 per cent.

Table 6. High-school dropout rates, by immigrant status and region of origin

Percent of 18–22-year-olds who have less than a complete high-school education	US-born	Migrated with parents	Separated during migration	Sample size
All immigrant children	34.4	12.6	40.8	590
Latin Americans	20.0	17.2	40.0	379
Asians	20.0	9.4	50.0	91
Others	59.5	9.4	37.5	120

High-School Dropouts

The most common measure of (lack of) educational success in the immigration literature is the high-school dropout rate. For adjustee immigrants’ biological children who live in the US (they need not live with their parents), who are between 18 and 22 years old and who migrated before the age of 18, we identify those who are high-school dropouts—i.e. those who are not currently attending school and who report a less-than-complete high-school education.

Table 6 presents the percentage of 18–22-year-olds in our sample who are high-school dropouts. The sample size is small because recent migrants tend to be young and therefore few have children over 18 years old. Nevertheless, the measured impact of separation on dropout rates is similar to that reported for the education gap. For immigrants from whatever region of the world, dropout rates are higher for those separated during migration than for those who migrated with their parents—for example, for Latin American children separated from their parents during migration the rate is 40 per cent, compared with 17 per cent for those who migrated with their parents and 20 per cent for those born in the US to immigrant parents. The dropout rates from our sample for Latin American immigrants separated from parents during migration are similar to those reported by, for example, the Pew Hispanic Trust (2002). In fact, our results suggest that the higher dropout rates of Latin American immigrant children is entirely due to the impact of family separation during migration. Dropout rates for children who migrated with their parents are lower than those for US-born children.

We estimate a regression where the dependent variable is 1 if the child is a high-school dropout, and 0 otherwise. The independent variables in the dropout regression are the same as those in the education-gap regressions. The coefficients on the migration dummy variables are presented in Table 6. The estimates suggest that immigrant children who were separated from their parents during migration are more likely to drop out than those who migrated with their parents, and that the latter are less likely to drop out than the US-born.⁶

When we look at the impact of separation for different groups, the results are generally similar to those of the education-gap regressions (see Tables 7 and 8). Specifically, the negative impact of separation is greater for children whose parents were undocumented and for children who migrated at older ages.⁷ Further, the impact of separation from a mother is greater than the impact of separation from a father.

Table 7. Impact of separation during migration on high-school dropouts

Group	Migrated w. parents ²		Separated during migration ²		Difference ^{1,2}
	(Compared to the US-born)				
All	-0.165	(.119)	0.001	(.136)	0.166**
<i>By region of origin</i>					
Latin America	-0.105	(.157)	-0.035	(.193)	0.070
Asia	0.410	(.438)	0.608	(.481)	0.198
Other	-0.554	(.326)	-0.376	(.37)	0.178
<i>Gender</i>					
Girls	-0.055	(.197)	0.107	(.215)	0.163*
Boys	-0.285	(.175)*	0.130	(.21)	0.415*
<i>Legal status of parents before receiving a green card</i>					
Undocumented	-0.189	(.137)	0.021	(.168)	0.210**
Documented	-0.144	(.163)	-0.016	(.164)	0.128*
<i>Age at migration</i>					
0–6 years	-0.107	(.123)	-0.110	(.147)	-0.003
7–11 years	0.090	(.182)	0.106	(.18)	0.016
12–18 years	0.073	(.243)	0.361	(.258)	0.288***
<i>Age at separation</i>					
0–6 years	0.002	(.101)	-0.078	(.119)	-0.080
7–11 years			0.246	(.109)*	0.244**
12–18 years			0.144	(.134)	0.142*

Notes: *significant at 10 per cent; **significant at 5 per cent; ***significant at 1 per cent.

¹Significance levels for the difference are for the hypothesis that the coefficient on separated during migration is greater than the coefficient on migrated with parents.

²Standard errors are robust to heteroskedasticity.

Phase 3: Further Qualitative Analysis

After using national data to confirm our hypotheses that children separated during migration have lower educational success, we decided to return once again to Maryland to gather feedback from teachers and parents. In the final qualitative stage of our analysis, we are looking for verification of and insights into the interpretation of our quantitative results. For example, in the quantitative analysis, we found that children separated from their parents during migration are older than other children in their grades—that is, they demonstrate an ‘education gap’. In our focus groups with parents and our teacher surveys we asked if their experience has been that children separated from their parents during migration are older than others in their grade, and why this is so.

Focus Group

In November of 2008 we conducted a focus group with eight mothers of children who had been separated from their parents for at least two years because of migration and who were then attending schools in Baltimore. This focus group also included

Table 8. Impact of separation during migration on dropouts, compared to the US-born

	Migrated with parents		Separated from one parent during migration		Separated from both parents during migration	
From high-school dropout regressions						
All immigrants	-0.154	(.119)	-0.009	(.137)	0.120	(.177)
Latin Americans	-0.098	(.158)	-0.038	(.194)	0.037	(.258)
	Migrated with parents		Separated from father during migration		Separated from mother during migration	
From high-school dropout regressions						
All immigrants	-0.158	(.142)	-0.116	(.169)	0.209	(.174)
Latin Americans	-0.138	(.202)	-0.192	(.249)	0.123	(.212)

Notes: *significant at 10 per cent; **significant at 5 per cent; ***significant at 1 per cent.

one young adult who had experienced separation from and reunification with her parents during migration.

The focus was on the educational experiences of separated and reunified children, and on the academic consequences. We were looking for insights into characteristics or factors that negatively affect school performance among this category of immigrant children, and a more-in-depth understanding of the quantitative results.

The mothers in our focus groups told us that immigrant students who enter school in the US are often assigned to a lower grade than they have completed in their home country. Mothers identified this as an important factor that negatively affected the academic success of immigrant (separated and reunified) children, made the student older than the rest of the students in his or her class and, as one participant stated, made her child vulnerable to teasing and disrespect from other children in the family and at school.

Teacher Survey

We designed an anonymous online survey for teachers that complements and expands on our understanding of the quantitative and focus-group results. We e-mailed a letter to 383 teachers of English for Speakers of Other Languages (ESOL) in the northern region of the Prince George’s County Maryland Public School System, as well as to all (not just ESOL) 174 teachers at the two high schools with the largest proportion of immigrant students (Northwestern and High Point).⁸ We received 75 completed questionnaires—69 from ESOL teachers (an 18 per cent response rate) and nine from high-school teachers in other subjects (a 5 per cent response rate).

Confirming our quantitative results, most teachers had noticed that immigrant children are often older than others in their grade. This is consistent with the findings in the quantitative analysis and the focus groups. Almost all teachers agreed that

children who migrated when they were older have a harder time adjusting to the US school system, and that these problems are particularly noticeable among those who have been separated from their families. As one teacher wrote, 'It seems to me that middle school is tough enough without having to adjust to "new" parents, new country, new language and new friends. Younger kids have the advantage of more flexible brains and, if they are in the primary grades, have to make less of a cognitive leap.'⁹

Conclusions

Empirical research has shown that separation from parents during migration can have a negative impact on the educational attainment in the country of origin of children left behind (McKenzie and Rapoport 2006; Miranda 2007). However, until our present study, there has been no research on the impact of separation on the educational success of children *after reunification* with parents in the destination countries.

In our first qualitative stage we interviewed psychologists and school counsellors and conducted two focus groups with Latin American immigrant parents in Baltimore. Psychologists and parents confirmed the conclusions of the literature (see, for example, Ainsworth 1989; Miranda *et al.* 2005; Schen 2005; Smith *et al.* 2004) that such separation has negative impacts on family cohesion and the psychological well-being of parents and children, and that the negative psychological impact was greater if the separation was from the mother rather than from the father. While school counsellors told us that separation of the children from their parents during migration had negative consequences on the children's educational success, parents did not recognise this as a problem. Our qualitative analysis also led us to hypothesise that any negative impact of separation on educational success would be greater for the children of undocumented parents and children who migrated at older ages, going beyond the problems experienced by all migrants. Again, this was confirmed by the results of our quantitative analysis.

For every subset of the data, the probability of an education gap and dropping out of high school is greater for those separated during migration, while there is no significant difference between those who migrated with their parents and the US-born. The negative impact is, again, more noticeable for children from Latin America than for those from Asia and other areas of the world, as it is for children separated from their mothers (as opposed to fathers) and for those whose parents have been living in the US illegally. We also found that the negative impact of separation during migration is greatest for children who immigrated as teenagers.

In our final qualitative stage we conducted a survey of teachers and one additional focus group of parents. The results of this stage are consistent with the results of the quantitative, and the earlier qualitative, stage. While our quantitative analysis could not provide insights into why education gaps and dropout rates are higher for children who have been separated from their parents during migration, our follow-up

qualitative analysis does provide some likely reasons. A teacher survey led us to conclude that children separated from parents during migration may have less success at school not only because of the negative psychological effects of separation, but also because they are assigned to a grade below their age level when they arrive in the US, possibly due to their lack of English skills.

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Notes

- [1] Bohr and Tse (2009) and Kwong *et al.* (2009) study a related issue—the American-born children of Chinese immigrants in North America who are sent to China as young children to be raised by extended family members and then returned to their biological parents for schooling in the US.
- [2] For example, Karakus *et al.* (2010) show that students who exhibit behavioural problems in middle school are more likely to drop out of high school.
- [3] 'Adjustee immigrants' is the term the dataset documentation (and US immigration authorities) use to indicate those who lived in the United States prior to receiving their green cards (legal residency). The other type of immigrants included in the data we use are those who are new arrivals to the US. Adjustee immigrants may have been undocumented before receiving their green cards, or they may have been in the US on some other type of visa (i.e. student, tourist, temporary worker etc.).
- [4] Asian immigrants generally perform better in school than immigrants from Latin America and other parts of the world (see Suárez-Orozco *et al.* 2008).
- [5] The results of regressions, including an independent variable indicating years of separation, are available in a working paper at http://www.umbc.edu/economics/wpapers/wp_09_104_FinalReport-FamilySeparationandReunification.pdf. The age-related results are consistent with those reported by Gonzalez (2003) for immigrants to the United States.
- [6] The signs and significance levels for the other variables in the dropout regressions are similar to those reported in the education-gap regressions.
- [7] As in the education-gap regressions, when we add a variable that indicated the number of years a child was separated from at least one parent, the coefficient on that variable was negative and not significant at any reasonable level.
- [8] The e-mail provided teachers with the URL and a link to the online survey and a request that they visit the site and complete the questionnaire, which can be viewed at <http://www.umbc.edu/mll/teachers/>. We focused on high school because, according to our quantitative

analysis, it is there where separation during migration has the biggest negative effect on success at school.

- [9] The teacher surveys also included several questions on the appropriate policies for addressing the problems of children separated from their parents during migration. Policy responses are discussed in detail in Poggio and Gindling (2011).

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