

UMBC

AN HONORS UNIVERSITY IN MARYLAND

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

December 2008

T. H. Gindling
Sara Z. Poggio



Maryland Institute *for*
Policy Analysis *&* Research

FINAL REPORT

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

Spencer Foundation Grant Number 200800052

June 2007-December 2008

Principal Investigators:

T. H. Gindling, Ph.D.
Department of Economics
University of Maryland Baltimore County
Baltimore, Maryland 21250
gindling@umbc.edu

Sara Z. Poggio, Ph.D.
Department of Modern Languages and Linguistics
University of Maryland Baltimore County
Baltimore, Maryland 21250
poggio@umbc.edu

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

Table of Contents

Executive Summary	iii
I. Introduction	1
II. Literature Review	2
III. Methodology	5
IV. Stage 1: Qualitative I	6
V. Stage 2: Quantitative Analysis	8
VI. Stage 3: Qualitative II	31
VII. Conclusions & Policy Implications	37
Appendix A: Tables A1, A2	44
Appendix B: Letter to Teachers	47
Appendix C: Teacher Survey	49

Executive Summary

One in five children of school age in the United States is an immigrant or child of immigrants. We examine a factor that contributes to the difficulties many immigrant children face in school—separation from parents during migration. For many immigrants, especially those from Central America and Mexico, it is common for a mother or father (or both) to migrate to the United States and leave their children behind, in the care of relatives or friends. Then, after the parent(s) have achieved some degree of stability in the United States, the children follow. Previous studies found that up to 80 percent of Latin American immigrant children in U.S. schools have been separated from parents because of migration.

Using qualitative and quantitative methods, we examined the hypothesis that separation during migration results in problems at school after reunification. We collected qualitative data in three ways: focus groups of parents of Latin American immigrants in Maryland; in-depth, non-structured interviews of school counselors and psychologists; and an on-line survey of teachers in Maryland schools. The qualitative analysis guided the design of our quantitative analysis, provided insights into the interpretation of the quantitative result, and provided examples of existing policies and suggestions for new policies to address the challenges faced by immigrant students who have experienced family separation. In the quantitative analysis, we used data from the New Immigrant Survey, a nationally representative survey of new legal immigrants collected by the Office of Population Research of Princeton University.

We find that family separation during migration has a negative impact on the educational success of immigrant children in U.S. schools. Children separated from parents during migration are more likely to be behind others their age in school and are more likely to drop out of high school. The negative impact of separation during migration on educational success is largest for children separated from their mothers (in contrast to fathers), for those whose parents have lived in the United States illegally, and for those who reunited with parents as teenagers (rather than at younger ages).

Our results suggest that school counselors need to be aware that children separated during migration and later reunited with parents are more likely than other students to have academic and family relationship difficulties. Teachers and parents argued that is important that school counselors speak the language and are comfortable with the culture of the immigrant child. Counseling interventions suggested include individual and group counseling, as well as support groups that include peers who have experienced family separation but have been in the United States for several years.

We find that the negative impact of separation during migration is largest for children who immigrate as teenagers. Because older immigrant students often face strong pressure to work to help out their extended families, initiatives to lower high school drop out rates should allow high school students to take classes at times when they are not working (at night or on the weekend), and to continue to receive free public school education at older ages (because it may take them longer to complete high school as part-time students).

In terms of national immigration policy, our results suggest that policies of family reunification should concentrate on reuniting families while the children are still young.

Family Separation and Reunification as a Factor in the Educational Success of Immigrant Children¹

I. Introduction

Because of the recent surge in immigration to the United States, immigrant children are one of the fastest growing segments of the U.S. school-age population. One in five children of school age in the United States is an immigrant or child of immigrants (The Urban Institute, 2006). Special challenges and opportunities face immigrant children in school. On the positive side, immigrant children recognize the sacrifices they and their parents make for their benefit, and are therefore highly motivated to succeed in school (Rumbaut, 2005a). On the other side, challenges that immigrant children face include lack of English proficiency, culture shock and the low socioeconomic status of many immigrant parents.

We hypothesize that another factor common to the migration experiences of many recent immigrant children may also contribute to the difficulties some immigrant children face in school—separation from parents during migration. For many immigrants, especially those from Central America and Mexico, it is common for a mother and/or father to migrate to the United States 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 United States, the children follow (Suarez-Orozoco, Todorava and Louie, 2002). The trauma, grief and disruptions caused by separation, migration and reunification of families have profound negative psychological effects on children and their parents (Schen, 2005 and Smith, Lalonde and Johnson, 2004). It is reasonable to hypothesize that separation during migration will result in problems at school after reunification. In this paper we study this issue using a mixed qualitative-quantitative methodology.

The focus of our qualitative work is Latin American immigrants in Maryland. We begin with focus groups of parents of immigrant children who have been separated during migration, and in-depth, non structured interviews of school counselors and psychologists. The insights gained from these focus groups and interviews then guide our quantitative analysis.

In the quantitative analysis we make use of data from a nationally representative survey of new legal immigrants (Latin American and others). We test whether there is evidence from this survey that the insights gained from the qualitative analysis of Latin American immigrants in Maryland can be generalized to the broader immigrant population in the country as a whole. Specifically, we test whether the quantitative data are consistent with the hypotheses that children separated from their families during migration have less educational success than those who migrate with their families, and that the negative impact of family separation is larger for

¹ We are grateful for financial support received for this research project from: the Spencer Foundation through grant number 200800052; the UMBC Graduate School through a Special Research Initiative Support grant; and the Maryland Institute for Policy Analysis and Research (MIPAR) through a MIPAR Fellowship. Helpful comments were received from Ramona Box, Patricia Chiancone, Dennis Coates, Lisa Dickson, Dave Marcotte, the participants at the conference on “Emerging Perspectives on Children in Migratory Circumstances,” Drexel University, June 20-22, 2008 and the participants of a UMBC Public Policy-Economics seminar. Leif Huber, Luis Peralta, Elizabeth Arevalo, Lisa Fink and Claudia Rybero provided valuable research assistance. Focus group participants were recruited by Evelyn Rosario of the Hispanic Apostolate of Baltimore.

Latin American immigrant children, for children who migrate as teenagers, for children with parents who entered the United States illegally, and for children separated from mothers (as opposed to fathers). In the final qualitative stage of this research we return to focus groups of Latin American immigrant parents in Maryland, as well as an online anonymous survey of teachers in Maryland schools, to provide insight into the interpretation of the quantitative results, and for suggestions about policies to address the challenges faced by immigrant students who have experienced family separation

II. Literature Review

The literature on the performance of immigrant children in U.S. schools can be grouped into two categories: (1) studies that focus on weaknesses in the schools many immigrants attend and (2) studies that focus on the characteristics of the immigrant's families. Schools that Latin American students attend more often have: (a) less-qualified teachers, (b) fewer resources per student, (c) lowered expectations for student achievement, (d) more and harsher discipline, (e) mismatches between school and home culture and (f) a high mobility rate of students and teachers. The quality of schools and family characteristics are associated; low achieving schools tend to be located in communities with high poverty rates and more low-income families where many immigrant families are found.

The two family and personal characteristics that are most often cited as causes of poor performance of immigrant children at school are lack of English language proficiency and low socioeconomic status. Marcelo and Carola Suarez-Orozco summarize the research on immigrant children, schooling performance and social adaptability by listing 10 factors that have the strongest implications for school performance of immigrant children (Suarez-Orozco and Suarez-Orozco, 2007). Their list includes: English language proficiency; family socioeconomic background; the educational background of the child before migration; neighborhood socioeconomic and school characteristics; whether the child and/or parents are undocumented; healthy social support networks; strong and cohesive community organizations that can supervise and support immigrant youth; cohesive and well functioning families that are active in their children's education; and appropriate peer relationships and strong mentoring relationships ("In nearly every case of a significant upward shift in (academic) performance, an advocate or mentor had entered the youngster's life, helping to channel the course of his or her academic trajectory" p. 262). Portes and Rumbaut, using data from the Children of Immigrants Longitudinal Study, report similar findings (Portes and Rumbaut, 2001 and Rumbaut, 2005). Specifically, they find that parental socioeconomic status, living in a two-parent family, English proficiency, educational expectations, length of residence in the U.S., self-esteem, age and ethnicity have significant impacts on the achievement test scores, high school GPA and dropout rates for children of immigrants in the United States.

The existing literature on immigrant children and education rarely distinguishes between the children of immigrants who were born in the United States and immigrant children themselves. Among the later, there is another distinction between immigrant children, with some arriving in United States at the same time that their parents do and some spending time in their country of origin waiting to join their families after they are settled.

While many of the problems of first and second-generation immigrant children are similar, such as lower socioeconomic status, poor schools and discrimination, immigrant children face additional challenges beyond those of the second generation. Second generation children of

immigrants do not have to learn English, are U.S. citizens, consider themselves to be Americans, and "do not have to contend with the intense disorientation of arriving in a new country... Learning the new cultural code is stressful and exhausting, as anyone living in a foreign land for a few weeks can attest" (Suarez-Orozco, et. al. 2008, p.4).

Literature from a variety of disciplines leads us to suspect that separation during migration will have a further negative effect on educational attainment that goes beyond any negative effect on migrants in general. In our work, we carefully distinguish between children of recent immigrants who have been born in the United States, children born abroad who migrated with their parents, and children born abroad who were separated from their parents during the process of migration.

Early studies on the effects of immigration in family relations showed that families tend to be affected by the experiences of immigration. Particularly, relationships between parents and children could become conflictive until the family dynamic is restored. Sluzki (1979) analyzed the effects of cultural, economic and emotional changes on immigrant families and showed how family roles and specific family dynamics are transformed with the immigration process

Relationships between parents and children in early childhood can affect a wide range of behaviors later in life. Attachment Theory, for example, argues that disruptions in "affection bonds" with parental figures (especially mothers) can have profound negative psychological and developmental implications later in life. Separation from parents is particularly important when the child is young. (Winnicott, 1958; Ainsworth, 1989). Young children can interpret separation from parents as a complete loss of their love and protection. Attachment theory focuses on the effect of the bond that children develop in their relationship with parents and in the meaning of the interruption of the relationship reflected in the child's behavior. The loss of this bond with parents" triggers grief responses that affect behavior. Separation from parents during migration, in particular, can lead to emotional distress and have an impact on later relationships and behavior.

Immigrants in general experience "ambiguous loss" in relation to friends and family members in the country of origin (Boss, 1991). Ambiguous loss is defined as the impossibility to mourn and heal after losing a loved one in the case of someone who is "physically absent but psychologically present," friends and relatives who are alive but do not interact with the immigrant anymore. Immigrant children have to deal with ambiguous loss after their mother or father leaves them, when they have to leave their caregiver in the country of origin, and when they leave the rest of their family and friends. It is this burden that immigrant children bring to their new country and new school that becomes a main constraint for them to succeed at school in America. The emotional impacts of separation and reunification are further complicated by pre-and post arrival events and conditions that the child experiences in relation with his/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. Studies show that in some cases when the child is expecting to be reunited with his/her parents in United States, he/she will be not concentrate enough on learning in their local school. Children left behind are, in effect, living in two worlds. "Piedras Blancas, El Salvador fourth grade teacher Roney Ramirez on Josselin Mendez, whose parents are both in the United States: 'I try to tell her that what she learns here can serve her over there... But she really doesn't take it in. Her mind is so focused on over there that it's as though she's left already.'" (Aizenman, 2006).

While remittances received from migrating parents can promote the education of the children left behind (Hanson and Woodruff, 2003), there is also increasing evidence that children left behind who expect to be reunited with migrating parents obtain less education while separated. For example, in a study of children of immigrants from Oaxaca, Sawyer and Keyes (2008) find that while remittances contribute to increased education levels of children, having a close family member in the United States actually reduces the education of children left behind. Similarly, Amuedo-Dorantes (2008) finds evidence that in some communities in Haiti remittances raise school attendance only for children from households who do not experience any family out-migration. Children with a family member in the United States (a “migrant network”) are more likely to see migration, rather than education, as the route to higher earnings, and therefore less likely to find schooling in the home country to be worthwhile, and are therefore likely to get less educational attainment while separated from their parents (McKenzie and Rappaport, 2006 and Miranda, 2007). In another study, based on a survey of 1,500 households in five Mexican municipalities where family separation is prevalent, Lahaie, et. al. (2008) find that the strongest predictor of educational and emotional health outcomes of Mexican children is a caregiver who left the household to migrate to the United States. The impact of family separation depends on whether the family member who migrates is the mother or father. A household where the caregiver-spouse (generally the mother) has migrated is 3.6 times as likely to include a child with educational or behavioral problems, while a household where a spouse who is not the caregiver (generally the father) migrates is less likely to include a child with educational or behavioral problems.

These emotional distresses that immigrant children experience before their arrival to the United States will complicate their adjustment to family, school and culture in the United States. 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 that affect the educational success of immigrants have different effects on boys and girls. A number of strands of the literature also suggest that the impact of immigration on the education of children will differ depending on the age of migration. For example, because language acquisition becomes more difficult as children age, adaptation to a new language, culture and educational system will be more difficult for children who migrate when they are older (Scovel, 2000 and Chiswick and Miller, 2008). Hirshman (1994) notes that “The ages of children and teenagers differentiate the role and potential influence of the home, neighborhood, schools, peers and the mass media.” Thus, for immigrant children, the probabilities of “becoming American” are more related to the age of the child at arrival than to the length of residence in America.

Literature from economics, sociology and education find that factors related to the separation of children from parents during migration have negative effects on school success. Chartrand, et. al. (2008) finds that children 1-5 years old in families where one parent as been deployed abroad as a soldier have more behavioral problems than do children in military families where both parents are present at home. “Stressful events during childhood (e.g. changes in geographic location) appear to have large and independent negative effects on a variety of indicators of children's (educational) attainments” (Haveman and Wolfe, 1995). Further, recent research has suggested that children of single-father families are particularly disadvantaged, compared with single-mother households or intact families (Biblarz and Raftery, 1999). A large body of research in the United States finds that children who grow up with only one birth parent

are disadvantaged across a range of outcomes. For example, they are less likely to complete high school and are more likely to have poor mental health in adulthood (Case, McLanahan and Lin, 2000). Based on a longitudinal survey of children of immigrants in California, Rumbaut (2005a) also finds that school performance is strongly correlated with family dynamics and family cohesion. Camaron and Heckman (2001) find that family factors explain most of the Hispanic-White gap in high school dropout rates.

The recent study that is most similar to ours is described in Suarez-Orozco, Suarez-Orozco and Todorova (2008). Suarez-Orozco, et. al. collect longitudinal (1999-2002) data on 407 recently arrived immigrants, ages 9-14 in 1997, in San Francisco and Boston (the Longitudinal Immigrant Student Adaptation, or LISA, study). Suarez-Orozco, et. al use a mixed method (qualitative and quantitative) to study many aspects of the lives of immigrant children, including the factors that affect the educational success of immigrants. Specifically, they examined the factors influencing GPA and Woodcock-Johnson achievement test scores. They found that the following factors affect academic achievement: English language proficiency, parental education, income, gender, behavioral engagement, school characteristics, peers, and family structure. They did not explicitly test for an impact of separation during migration on academic performance in the quantitative analysis. However, in the qualitative portraits of high and low achievers at school they write that among “protracted decliners” “many families had been strained by protracted separations and complicated reunifications” (p. 170), while the “high achieving students... were also much less likely to report long separations from their parents” (p. 296). We extend the Suarez-Orozco, et. al. analysis by: (i) using a representative, country-wide sample of immigrants to explicitly test for an impact of separation during migration on academic performance, and (ii) examining the impact of separation separately for younger immigrants versus older immigrants.

III. Methodology

We use a mixed methodology of both quantitative and qualitative research techniques to examine the hypothesis that separation during the migration process affects school performance of immigrant children. The methodology proceeded in successive stages: qualitative, followed by quantitative, followed by qualitative. The qualitative stages focus on the experiences of immigrant children from Latin America who live in Maryland. In the quantitative analysis we examine the experiences of children who live throughout the United States and have emigrated from all areas of the world, although to maintain consistency with our qualitative work we also estimate the impact of separation on immigrants from Latin America separately from immigrants from other areas of the world.

In the first qualitative stage we conducted (i) two focus groups of Latin American immigrant parents who had been separated from their children during migration, and (ii) in-depth, non-structured interviews of key informants: school counselors and psychologists counseling Latin American immigrant families in Maryland. We use the qualitative analysis to direct our quantitative analysis: developing a hypothesis that we then test with a nationally representative survey of recent legal immigrants.

In the quantitative stage of this research we apply multiple regression analysis to a newly released national level data set to examine the determinants of educational success among immigrant children and U.S.-born children of immigrants. Specifically, we test the hypotheses that (i) separation during the migration process affects school performance of immigrant

children, (ii) whether the impact of family separation depends on the country or region of the world from where immigrants come, (iii) whether the effect of separation is different for girls and boys, (iv) whether the effect of separation is worse for children of parents that were undocumented before receiving their green cards, (v) whether the effect of separation is worse for those children who migrate as teenagers, and (vi) whether the effect of separation is worse for children separated from the mother as opposed to the father.

We then follow up this quantitative analysis with additional focus groups of Hispanic immigrant parents in Maryland, as well as an online anonymous survey of teachers in Maryland schools. In the focus groups we explore more deeply the implications of the quantitative analysis; asking about the educational experiences of immigrant children both before and after migration. In the focus groups and teacher survey we also ask parents and teachers about the factors that negatively affect the school performance of Hispanic immigrant children in schools, and for suggestions about what schools and local governments can do to facilitate the success of Hispanic immigrant children in schools.

Table 1 summarizes our methodology.

Table 1: Methodology

Our Theoretical Approach:	Multidisciplinary
Our Methodology:	Mixed Methods Research: in sequence – qualitative followed by quantitative followed by qualitative.
Stage 1. Qualitative I:	<ul style="list-style-type: none"> ● In-depth, non-structured interviews of key informants: school counselors and psychologists treating Latin American immigrants in Maryland. ● Focus groups of Latin American immigrant parents in Maryland.
Stage 2. Quantitative:	Econometric analysis of determinants of the educational success of children of immigrants, using a national survey of recent legal immigrants to the United States from all areas of the world.
Stage 3. Qualitative II:	<ul style="list-style-type: none"> ● Focus groups of Latin American immigrant parents in Maryland ● On-line anonymous survey of teachers and school administrators in Maryland.

IV. Stage 1: Qualitative I

i) Interviews with Psychologists

We interviewed psychologists from Johns Hopkins University who were treating immigrant families at the Catholic Hispanic Apostolate in Baltimore, Maryland. The Hispanic Apostolate has for many years provided free or subsidized legal services, health care services, English instruction and other social services to a large proportion of the immigrant population of Southeast Baltimore (no matter their religion). These 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 because of separation. While most of the patients who had been separated from their families during migration were mothers who were currently separated, the few children who were seen also reported being depressed as a result of family separation.

ii) Interviews with School Counselors

We also interviewed counselors in the International Counselors Office of the Prince George's County Public School system, a school district with a large and growing population of immigrant students from Latin America. The counselors with whom we spoke were very sure that separation during migration, and subsequent reunification, has a negative impact on the educational success of high school students. The counselors also noted that problems at school tend to show up in those who migrated as teenagers more than those who migrated at younger ages. Children who are reunited at younger ages are respectful of authority and more easily adapt to a new school, while those who are reunited as teenagers are disrespectful and have a difficult time integrating into the academic and social life at school.

iii) Focus Groups

We conducted two focus groups of parents (mostly mothers) of Hispanic students in Baltimore City at the Hispanic Apostolate. Because of their long-time service to the Hispanic immigrant community of Baltimore, the Hispanic Apostolate is the organization best situated to secure the participation of a representative sample of the Hispanic immigrant parents Baltimore. The Hispanic Apostolate of Baltimore recruited the focus group participants and we conducted the focus groups at the Apostolate.

The participants in the focus groups were immigrant parents (mostly mothers) from Latin America who had been separated at least two years from their children before reunification in the United States. The first focus group included eight parents (seven mothers and one father) and the second included six mothers. The main questions to orient the discussion among immigrant parents were: (1) how did parents react to the separation and reunification with their children; (2) how did children react to the separation and reunification with their parents; (3) did separation during migration have negative consequences for school performance?

The parents in our focus group agreed that separation of their children from parents had negative psychological consequences for both children and mothers. They agreed that children are most affected by separation from their mothers (compared to fathers). The parents lamented that in many cases during separation children became attached to their caretaker and estranged from the mother. Almost universally, parents were dissatisfied with the caretakers children lived with while the family was separated. Several mothers complained that the caretaker worked to drive a wedge between them and their children, did not follow the instructions of the mother in treating the child left behind, and did not treat the immigrants' children as well as their own biological children. When children leave their country to join their mothers in US, most children express pain because of separation from the caretaker (they express grief at their loss).

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 United States, and it is not uncommon for the immigrant child to enter a family with siblings who have been born in the U.S. Parents report that new family members, husbands and siblings find it difficult to accept the immigrant child who feels he/she is the stranger, and that it is difficult for the child to accept authority from mother and new relatives.

The newcomer has many emotions to deal with: frustration, deception, pain, jealousy and the shock of missing the caretaker in their country of origin. Even if the child looks happy to be reunited with his/her family, mothers often observed early signs of emotional distress in their behavior at home and/or show signs of stress when they start to attend school.

We heard horrific stories of “coyotes” mistreating children entering the U.S. without documents. In one situation, during the focus group a parent in our group was frantic because her six year old daughter had been turned back at the Miami airport, and she did not know to which airport (or even which country) her child was sent. This suggests that children of undocumented immigrants are more likely to experience trauma during migration and are therefore more likely to have greater psychological problems after reunification than children of legal immigrants.

When we directed the conversation to the question of whether separation during migration had an impact on the success of their children at school, mothers said that they did not think so (even though they agreed that separation affected family relationships, discipline and psychological health). The mothers, in general, either expressed the belief that their children were doing well at school, or attributed any lack of educational success to other factors (especially the lack of good schools, the lack of understanding from teachers and school administrators, and harassment from U.S.-born students). Yet some mothers also told stories about teachers calling about problems their children were having at school, children who were afraid to go to school, and children who were not “learning.” Similarly, when we interviewed psychologists, school counselors and others who work with immigrant children, all believed strongly that separation during migration has a negative impact on educational attainment.

Emotional and discipline problems are most noticeable for children who arrive as teenagers. Mothers reported that children who reunited at younger ages are respectful of parental authority and responsive to strong positive parental expectations regarding school, while those who are 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.”

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

V. Stage 2: Quantitative Analysis

Based on our literature review and the data collected in the first qualitative analysis stage, we arrived at the following hypotheses to guide our quantitative analysis: immigrant children separated from parents during migration have less educational success compared to (a) children who immigrated with their parents, and (b) U.S.-born children of immigrants. Further, our research leads us to suspect that the impact of separation will be larger for: (a) those that migrated at older ages (especially teenagers), (b) undocumented immigrants, and (c) separation from mother (compared with separation from father).

We realize that our qualitative data is non-representative in a variety of ways: the sample is of parents from one neighborhood in Baltimore, Maryland; the sample includes only immigrants from Latin America; and the sample size is small. To examine whether the insights gained from the qualitative analysis of Latin American immigrants in Maryland can be generalized to the broader population of immigrants, we test the hypotheses derived from our qualitative work using data from a nationally representative survey of recent immigrants to the United States. While other researchers have used qualitative and quantitative analysis and data to find a negative impact of separation during migration on educational success, ours is the first study that we know of to use a nationally representative survey.

i) Data—The New Immigrant Survey

The New Immigrant Survey (NIS) is a public use data base of new legal immigrants to the United States and their children. The survey was conducted by the Office of Population Research, Princeton University (described in G. Jasso, D. S. Massey, M. R. Rowenzweig and J.P. Smith, 2008.)² A four percent sample of all who received Legal Permanent Residence (a “green card”) in the period May-November 2003 was collected. 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 immigrants: new arrivals, adjustee immigrants and children adopted from abroad. In this research, because we are interested in studying children who could have been separated from their parents during the migration process, we use only data on the families of adult adjustee immigrants (already living in the U.S.)—not new arrivals in 2003 or children adopted from abroad. Children who migrate with new arrivals by definition have not been separated from their parents during the migration process, and children adopted from abroad are different enough from other immigrants that they are not a good control group. The units of analysis in our empirical work are the biological children of adult adjustee immigrants, who live in the U.S. with at least one biological parent, and are 6-22 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 children of immigrants born in the U.S.

The New Immigrant Survey is the first publicly available data set to include enough information on the educational achievements of children of recent immigrants, combined with immigration histories of recent immigrants and their children, to test our hypotheses. The data set contains: detailed information on the migration history of family members (including the date when each arrived in the United States); whether each family member is currently attending school, the highest grade attended by each family member, Woodcock-Johnson Tests of Achievement for children 3-12 years old; information about language proficiency, and many other personal, workplace and demographic characteristics of each of the family members. Nineteen questionnaires were administered to different members of the families of immigrants: some were administered to all adult immigrants; some administered to immigrants and their spouses; and some administered only to spouses. Some surveys asked parents questions about all children in the family, while others asked only about a subsample of children. Finally, there is one data set of achievement test scores collected directly from a subsample of children in each family. Not all variables are collected for all children; many are collected only for a limited subsample of children.

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.³ In our sample, more than half of children (59%) have parents born in Latin America, compared with 19% from Asia and 22 % from other areas of the world.

² The New Immigrant Survey data and documentation are publicly available at <http://nis.princeton.edu/>.

³ Latin Americans include those from South America, Central America, Mexico, Cuba and the Dominican Republic. Asians include those from Asia and the Pacific Islands, but not from the former Soviet Republics or the Middle East.

We identify the biological children of recent adjustee immigrants who were separated from their families during migration 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 immigrant parents to the first year the child entered the U.S. We compared the first year the child entered the U.S. with the most recent entry of both the immigrant and his/her spouse. Children who were separated from at least one parent for two years or more are considered separated during migration.⁴ Table 2 shows the distribution of children of recent legal immigrants in our sample who were born in the U.S., who migrated with their parents, or who were separated from at least one parent during migration. Slightly over 50% of children immigrants in our sample were born the United States, 34% migrated with their parents and 15% were separated from their parents during migration. There are substantial differences in these patterns depending on region of origin. Latin American children are much more likely to have been born in the United States while Asian and others are much more likely to have migrated with their parents.

Table 2: Immigration Experiences of Children, By Region of Origin

Immigration Experience	Percent of all Children of Immigrants			
	All	Latin American	Asian	Others
Born in U.S.	50.7%	72.6%	17.7%	20.1%
Migrated with Parents	34.0%	15.2%	59.1%	62.9%
Separated during Migration ¹	15.3%	12.2%	23.2%	17.0%
Number of observations	1772	1050	328	394
Immigration Experience	Percent of Immigrant Children			
	All Immigrants	Latin American	Asian	Others
Born in U.S.	-	-	-	-
Migrated with Parents	69.0%	55.5%	71.8%	78.7%
Separated during Migration ¹	31.0%	44.5%	28.2%	21.3%

Source: New Immigrant Survey, a sample of all immigrants who received lawful permanent status (a "green card") between May-November of 2003.

We use data on the biological children of the adjustee immigrants, who live with their biological parent, and are between 6-18 years old. Adjustee immigrants are those who had been living in the United States before receiving their green cards (as opposed to immigrants who arrived in 2003).

Notes:

1. Constructed by comparing the year of the most recent entry of immigrant parents to the first year the child entered the U.S. (for biological children of the immigrant respondents who are living in the U.S. with an adjustee immigrant parent and who are between 6 and 18 years old).

Children who were separated from at least one parent for 2 years or more are considered separated during migration.

"Others" include those from Europe, the former Soviet Union, the Middle East, Africa and the non-Spanish speaking Caribbean.

⁴ Note that many parents had multiple entries and exits to and from the United States. By comparing the first year the child entered the U.S. with the most recent entry of the immigrant parents, we may be misclassifying some children who were separated from parents in an earlier immigration experience. For example, if parents return to their home country and then accompany their children back to the United States, they are classified as migrating with parents even though they had spent an earlier time separated.

While Latin American children are more likely to have been born in the United States, immigrant children from Latin America are more likely than immigrant children from other parts of the world to have been separated from their parents during migration. 45% of Latin American immigrant children in our sample were classified as separated from parents during migration, compared to less than 30% of Asians and others. Compared with the population of immigrants in the United States, even these numbers probably underestimate the proportion of children separated from parents during migrations; other school-based studies of immigrant children report 85%-90% of school age immigrant children have been separated from their parents during migration (for example, Suarez-Orozco, Suarez-Orozco and Todorova, 2008).

We expect that the impact of separation will differ depending on whether the child and/or their parents are undocumented. In the New Immigrant Survey data there is no information on the legal status of the children, but we can identify children whose parents were undocumented before receiving their green cards. We do this using the type of visa received and information about whether the parent entered the U.S. without documents. The different types of visas received by adjustee immigrants are: legalization; refugee/asylee/parolee; diversity immigrants; employment preferences; family fourth preference; child of U.S. citizen; parent of U.S. citizen; spouse of legal permanent resident; or spouse of U.S. citizen. We classify adjustee immigrants who receive a “legalization” visa as undocumented. However, other classes of adjustee immigrants (such as those who receive a visa because they are the spouse, parent or child of a U.S. citizen) may also have been undocumented before receiving their green card (Jasso, Massey, Rosenzweig and Smith, 2008). Therefore, we also class as undocumented any immigrant who reports that on their most recent entry to the United States they entered without documents.⁵

Table 3 shows the proportion of children in our sample whose parents were undocumented prior to receiving their green cards, by region of origin and family migration experiences. On average, 51% of the children in our sample had parents who were undocumented. The proportion of Latin American children of immigrants with undocumented parents is close to 80%, much larger than for immigrants from any other region of the world. Even this number is likely to be an underestimate of the proportion of all children of Latin American immigrants whose parents entered the U.S. without documents because undocumented immigrants are less likely to apply for legal permanent residency than are those who immigrated with documents. Children separated during migration, and those born in the United States, are more likely to have parents who were undocumented before legalization than are those who migrated with their parents.

⁵ With the 2003 NIS data we cannot capture other forms of previous illegal experience of adult immigrants such as visa overstays or unauthorized employment. Jasso, Massey, Rosenzweig and Smith (2008) estimate that of those who received green cards in 1996, 12% had a visa overstay experience and 11% had engaged in unauthorized employment.

Table 3: Percent of children whose parents were undocumented before receiving Legal Permanent Residency

Immigration Experience	Percent of children with undocumented parents, by immigration status			
	All	Latin American	Asian	Others
Born in U.S.	76.9%	87.5%	10.3%	22.8%
Migrated with Parents	14.6%	41.6%	4.6%	4.8%
Separated during Migration	44.6%	76.6%	17.1%	9.1%
Total	50.8%	79.6%	8.5%	9.1%

ii) Measures of Educational Success

We use four measures of the educational success of children of immigrants; the education gap (for 6-18 years olds); grade repetition (for 6-18 year olds); high school dropouts (for 18-22 year olds); and Woodcock-Johnson achievement test scores (for 6-12 year olds). For reasons described below, none of these measures is ideal, but all have advantages that make that measure worth using.

a) Education gap (not being “on grade”)

We borrow the concept of an education gap from Birdsall, Behrman and Szekely (2000). We consider a child to have an education gap if they are significantly older compared with other children in their 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 are conservative in identifying children who have an education gap 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 8 years old and attending the first grade, at least 9 years old and attending second grade, etc. Whether or not children are “on grade” given their age is a common measure of educational success used in the education literature (i.e. Fitzpatrick, 2008 and Cascio, 2005).⁶ The education gap is defined (measured) for children between 6 and 18 years old who are at least in first grade.⁷

The information used to calculate the education gap is collected in the demographic and migration questionnaires that are administered to all immigrants and, where possible, their spouses. A significant advantage of the education gap is that because questions were asked about all biological children of immigrants, of the measures of educational success that we have available, the largest sample (1753 observations) is available for this measure.

⁶ Whether children are on grade or not for their age is often used as a proxy for grade retention (repetition), although Cascio (2005) criticizes this interpretation.

⁷ A common measure of educational attainment for adults is the highest grade completed. The education gap is one way of measuring the level of educational attainment, or lack of educational attainment, of children who are still of school age. The education gap may also be an indication of other educational problems. For example, children who are older than others in their grade are significantly more likely to drop out of high school and less likely to complete college (Deming and Dynarski, 2008).

Children may have an education gap for a variety of reasons: they may have repeated a grade in the United States; they may have repeated a grade in their country of origin; they may have interrupted their schooling, or dropped out, while in their home country (this may be especially likely for those who come from isolated rural areas); they may have lost a year of schooling during the time it took to migrate; they may have been assigned to a lower grade in the United States than they had completed in their home country (possibly because of low English proficiency); or they may have dropped out of school while in the United States. A disadvantage of the education gap as a measure of educational success is that we do not know the reason why a child might have an education gap.

b) High school dropouts

For the biological children of adjustee immigrants who live in the United States (they need not live with their parents) who are between 18 and 22 years old and who migrated before they were 18 years old, we identify those who are high school dropouts. High school dropouts are identified as those who are not currently attending school and who report less than a completed high school education. Like the education gap, the information to identify high school dropouts is collected in the demographic and migration questionnaires that are administered to all immigrants and, where possible, their spouses. However, since few recent migrants have children who are older than 18, the sample size that results is small (590).

c) Grade repetition

For a subset of children, a sample of two or fewer 6-18 year old children per family, more detailed information about education history is collected (in the Parent/Guardian questionnaire). Specifically, parents are asked if a child has ever repeated a grade in school, and if so which grade. From this information we construct a dummy variable that is one if the child has repeated a grade and zero if not. The main disadvantage of this measure is the small sample size, 857 (about half the sample for the education gap).

d) Woodcock-Johnson test scores

Finally, we have Woodcock-Johnson Achievement test scores on vocabulary, reading and math tests for a subset of up to two 6-12 year old children in each family. Four tests were administered: letter-word identification, calculation, passage comprehension, and applied problems. The passage comprehension test is designed to evaluate academic achievement in reading comprehension and vocabulary. The calculation test is designed to evaluate academic achievement in mathematical and quantitative skills. The applied problem test measures achievement in practical problem solving in mathematics, while the letter word identification tests measures reading identification skills (Akresh and Akresh, 2008).

The biggest advantage of the Woodcock-Johnson test scores is that they are precise and comparable measures of educational achievement. The biggest disadvantage of Woodcock-Johnson test scores as measures of educational success is that they are reported only for 6-12 year olds. As we shall see, where we do find an impact of separation during migration have an impact on educational success, we find an impact only for teenagers.

iii) *Impact of Separation from Parents During Migration on the Educational Success of Children of Immigrants*

a) *Education gap*

Table 4 presents the percent of children in our sample who have an education gap. Children separated from parents during migration are much more likely to have an education gap than are children of immigrants born in the United States or those who migrated with their parents. On average, 12.4% of children separated from parents during migration have an education gap, compare with 4.7% for those born in the U.S. and 4.9% for those born abroad but who migrated with their parents. There are no significant differences between the U.S. born and those who immigrated with their parents. Clearly, there is something about being separated from parents during migration (beyond simply the process of migration) that is affecting the education gap. The impact of separation during migration shows up for all immigrant children, no matter the region of the world from which they come. The impact of separation is larger for Latin American immigrants than for immigrants from other parts of the world.

Table 4: Education Gap by Immigrant Status and Region of Origin

	U.S.-born	Migrated with parents	Separated during migration	Sample Size
Percent of Children (6-18) With an Education Gap				
<i>All Immigrant Children</i>	4.7%	4.9%	12.1%	1753
<i>Latin Americans</i>	5.3%	6.4%	16.7%	1042
<i>Asians</i>	0.0%	2.1%	9.5%	322
<i>Others</i>	2.5%	5.7%	6.2%	389

Note: A child is considered to have an education gap if they are significantly older compared with other children in their grade. Specifically, we classify a child as having an education gap if they are at least 8 years old and attending the first grade, at least 9 years old and attending second grade, etc.

In order to examine whether there are other factors that can explain the differences in the education gap between those separated during migration and those who migrated with their parents, we estimate regressions where the dependent variable is a dummy variable that is one if the child has an education gap (and zero 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.⁸ Other independent/control variables include: region of origin; socioeconomic status; years of residence in the United States; whether

⁸ The education gap regression is estimated using OLS (a linear probability model), where the standard errors of the coefficients are robust to heteroskedasticity. As a specification test, where possible we also re-estimated these equations using the probit technique. Probit estimation results in similar signs, significance levels and magnitudes for all coefficients when compared to the linear probability model results presented in this paper.

the child lives in a two-parent family; the gender and age of the child; whether the immigrant parent was undocumented prior to receiving their green card; the English proficiency of parents; and the age at which the child migrated.⁹ 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 5 presents the results from an education gap regression using data for all children of immigrants. The coefficient on the dummy variable indicating if the child migrated with parents measures the difference in the probability that a child has an education gap between children who migrated with their parents and U.S.-born children. The coefficient on the dummy variable indicating if the child was separated from parents during migration measures the difference between children separated from parents and U.S.-born children. For example, the results presented in Table 5 suggest that, after controlling for other influences on the education gap, 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 U.S. born. To calculate the difference in the probability of an education gap between those who were separated from their parents and those who migrated with their parents, subtract the two coefficients. The results presented in Table 5 suggest that the difference in the probability that a child has an education gap between those who were separated during migration and those who immigrated with their parents is 3.8 percentage points, and that this difference is statistically significant using a one-tailed test at the 10% significance level.

⁹ We expect the sign on the coefficient on the Asian dummy variable to be negative, indicating that the probability that Asian immigrant children have an education gap is lower than for immigrants from other areas of the world. Portes and Rumbaut (2001) and Suarez-Orozco, Suarez-Orozco and Todorova (2008) find that immigrant children from Asia, in general, have higher levels of educational success than do those from Latin America and the rest of the world. We measure parents' socioeconomic status with two sets of dummy variables indicating the highest education level and occupation of parents.⁹ We expect that the sign on the coefficients on the dummy variables for higher education levels to be negative. Children who have been in the United States for a longer time are expected to be better adapted to the culture of schooling in the United States, and therefore are expected to have higher levels of education success. Rumbaut (2005a) finds immigrant boys are much more likely to report problems with parents and difficulties in school than are immigrant girls. Much research has suggested that children of traditional, intact families have advantages across a range of educational outcomes compared with single-parent families (Biblarz and Raftery, 1999 and Case, McLanahan and Lin, 2000). Gonzalez (2002) finds that immigrants from Latin America and Europe who arrive in the United States as teenagers complete less education than children who migrate as preteens. Also, older children, if for no other reason than that they have been in school for a longer time, are more likely to experience an education gap. Children whose parents were undocumented are more likely to have problems at school (Pan, 2007). Finally, children with parents who speak little English are likely to experience more problems at school (Akresh and Akresh, 2008). We have no data on some important determinants of the educational attainment of immigrants (according to the literature). These are school and neighborhood characteristics and the English language ability of 13 to 18 year old children. Measures of the English language ability of children are only available for those 6 to 12 year olds who took achievement tests.

Table 5: Education Gap Regression

Dependent Variable: Education Gap=1

Explanatory Variable		
<i>Immigration Variables (reference group is U.S. born)</i>		
Immigrated with parents	-0.003	(.02)
Separated during migration	0.035	(.026)
<i>Region of Origin</i>		
Latin American	-0.018	(.02)
Asian	-0.007	(.015)
<i>Parent's 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)
Bachelors	-0.065	(.016) ***
Masters	-0.028	(.025)
Doctorate	0.038	(.033)
JD/MD	0.015	(.05)
<i>Parent's occupation dummies</i>		
Manager	-0.010	(.02)
Professional and technical	0.005	(.015)
Years of residence	-0.003	(.003)
Traditional family	-0.029	(.018)
Gender	0.020	(.012) *
Age	0.107	(.003) ***
Parent Undocumented	0.049	(.019) ***
Parent's English Skill (1=best)	0.003	(.005) *
Teen migrant	0.051	(.04)
Intercept	-0.033	(.034)
R-square	0.0696	
Number of observations	1545	

Notes: Estimated with Ordinary Least Squares (Linear Probability Model), standard errors are robust to heteroskedasticity.
 Traditional Family = 1 if child lives with both biological parents, 0 otherwise
 Gender = 1 if child is male, 0 if female
 Teen migrant = 1 if child migrated at age 12 or later, 0 if migrated at a younger age.
 Parent Undocumented = 1 if parent was undocumented before receiving a green card.
 Parent's English Skill = 1 if very good, 2 if good, 3 if fair, 4 if poor.
 * = Significant at 10%
 ** = Significant at 5%
 *** = Significant at 1%

The other variables in the education gap regression are often significant and all have the expected signs. Having parents with more education (especially a university education) significantly reduces the probability that a student has an education gap. A longer time living in the United States reduces the education gap, as does living in a family with two biological parents. Boys are significantly more likely to have an education gap than girls, as are older students and those students whose parents were undocumented before obtaining their green card. Children whose parents have higher proficiency in the English language are significantly less likely to have an education gap, while those who migrated as teenagers are more likely to have an education gap than those who migrated at younger ages. The coefficients on the dummy variables that indicate region of origin are not significantly different from zero.

We hypothesized that the impact of separation on educational success would differ depending on the characteristics of the immigrant student and his/her family. Specifically, we hypothesized that the negative impact of separation would be larger for those whose parents were undocumented before receiving their green cards, for those who migrated at older ages (especially as teenagers) and for those whose separation was from their mother rather than their father. Table 6 presents the results of estimates of the impact of separation for different types of children of immigrants. The first column of Table 6 presents the coefficients that measure the difference between children who migrated with their parents and U.S.-born children in the probability that a child has an education gap. The second column presents the coefficients that measure the difference between children separated from parents and U.S.-born children. The third column in this table 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.

Our results are consistent with our expectations. 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 and those born in the United States, while there is no significant difference between the education gaps for those who migrated with their parents and those born in the U.S. The impact of separation during migration (compared with migrating with parents) on education success is larger for children from Latin America compared to those from Asia and other areas of the world. The impact of separation is larger for children whose parents were undocumented prior to receiving their green card. The impact of separation on the education gap is larger for girls than for boys.

**Table 6: Impact of Separation During Migration on the Education Gap,
For Different Groups**

Group	Migrated with Parents (Compared to U.S. Born)	3	Separated During Migration	3	Difference	2, 3
All	-0.003	(.02)	0.035	(.026)	0.037	*
By Region of Origin						
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	
Gender						
Girls	0.002	(.024)	0.050	(.035)	0.048	**
Boys	-0.010	(.031)	0.021	(.038)	0.030	
Legal Status of Parents before receiving a green card						
Undocumented	-0.010	(.036)	0.072	(.04)	0.082	*
Documented	-0.017	(.021)	-0.006	(.026)	0.011	
Age of Migration						
0-6	0.002	(.023)	0.014	(.03)	0.012	
7-11	-0.013	(.051)	0.029	(.062)	0.042	
12-18	0.008	(.008)	0.117	(.091)	0.110	*
Ages of Separation						
0-6	-0.007	(.022)	0.002	(.027)	0.009	
7-11			0.017	(.047)	0.024	
12-18			0.086	(.084)	0.093	
Age						
6-12 Years Old	0.019	(.022)	-0.005	(.021)	-0.025	
13-18 Years Old	-0.058	(.04)	0.026	(.051)	0.084	***

Notes:

1. * = Significant at 10%, ** = Significant at 5%, *** = Significant at 1%
2. Significance levels for the difference are for the hypothesis that the coefficient on separated during migration is greater than the coefficient on migrated with parents.
3. Standard errors are robust to heteroskedasticity.

A particularly interesting finding relates to the ages at which children are separated from, and reunited with, their parents. The impact of separation is larger for children who migrated at older ages and for children who were separated from their parents during their teenage years. 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 with a difference of only 1% for those who migrated before they were 6 years old). For those separated from their parents as teenagers, the probability of an education gap that is 9 percentage points higher than for those who migrated with their parents (compared

with a difference of only 1% for those who were separated with parents only when they were very young — 0-6 years old). One might suspect that these age results reflect the probability that children separated from their parents at older ages are likely to have been separated from their parents for a longer period of time. That is, the results may not reflect the impact of age but rather the impact of a longer time separated 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 results of this estimate are presented in table A1 in the Appendix. The coefficient on the variable indicating the number of years of separation is not significant (and negative) at any reasonable level of significance (the separation dummy variable remained positive and was statistically significant). That is, the regressions results suggest that the impact of separation does not get larger the longer the child is separated from the parents. Rather, our regression results suggest that the age at which children are separated from their parents, not the length of time, has the biggest influence on the impact of separation.¹⁰

Consistent with the results that suggest that the impact of migration is largest for teenagers, we find a larger impact of separation on the education gap for 13-18 year olds (compared with 6-12 year olds). In fact, the impact of separation for those less than 13 years old is not statistically significant and not of the expected sign. This suggests that separation has an impact on the education gap, but this impact shows up only for older migrants and only when children are teenagers.¹¹

Table 7 presents the results of regressions that examine whether the impact of separation differs depending on whether the separation is from the mother, father or both.¹² The first two rows show that the impact of separation from both parents is greater than the impact of separation from only one parent (the difference is significant at 10%). 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 larger when the child is separated from his/her mother compared with father. The last two columns of Table 7 show that this is true.

¹⁰ These age-related results are consistent with those reported by Gonzalez (2002) for immigrants to the United States. Gonzalez (2002) reports that age of arrival has a significant negative impact on years of schooling completed, but only for children who arrive as teenagers and only for Latin American, Mexican and European immigrant children. On the other hand, immigrants who arrive as preteens complete more years of education compared with immigrants who arrived as infants. Gonzalez (2002) conducts a cost-benefit analysis, and concludes that a policy of allowing Latin American children to enter the United States before first grade is cost effective because the higher wages brought about by more schooling in the United States results in increased tax revenues that more than offsets the cost of education for these children in elementary, middle and high school.

Adding country of origin dummy variables for immigrants as an explanatory variable to control for quality of education in the origin country did not affect the signs or significance levels of the differences between those separated during migration and those who migrated with their parents (although it did lower the magnitude of the migration variables because the country of origin dummy variables captured much of the impact of migration).

¹¹ For younger students we have a variable that measures the English language skill of the child. It is possible that the negative impact of separation may only show up for those immigrant children with less English language skill. To test this hypothesis, we interacted the separation dummy variable with the variable that measures English language skill. The results of these regressions do not change our conclusions; even for younger children with almost no English skill we still do not find a significant impact of separation on the education gap, dropout, grade repetition or test scores.

¹² Data for the regressions which measure different impacts for separation from mother and father are limited to those children currently living with both biological parents.

Table 7: Impact of Separation During Migration on the Education Gap for Separation from One or Both Parents, from Mother or Father

	Migrated with Parents	Separated from One Parent during Migration (Compared to U.S. Born)	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 (Compared to U.S. Born)	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%
 ** = Significant at 5%
 *** = Significant at 1%

b) High school dropouts

The most common measure of educational success in the immigration literature is the high school dropout rate. We create a dummy variable that identifies whether the biological child of recently legalized migrants is a high school dropout. The sample size for our analysis of dropout rates 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. Table 8 presents the percent of 18-22 year old biological children of adult immigrants in our sample who are not in school and have less than a complete high school education. 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, dropout rates of Latin American children separated during migration are 40%, compared with 17% for those who migrated with parents (and 20% for those born in the United States to immigrant parents). The dropout rates that we calculate from our sample for Latin American immigrants separated from parents during migration are similar to dropout rates reported for Latin American immigrants from other sources (for example, 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 dropout rates for those children born in the United States. The pattern is similar for immigrant children from Asia; dropout rates are highest for those separated during migration and lowest for those who migrated with their parents.

Table 8: High School Drop-Out Rates and Grade Repetition Rates, by Immigrant Status and Region of Origin

	U.S.-born	Migrated with parents	Separated during migration	Sample Size
Percent of children 18-22 years old who have less than a complete high school education				
<i>All Immigrant Children</i>	34.4%	12.6%	40.8%	590
<i>Latin Americans</i>	20.0%	17.2%	40.0%	379
<i>Asians</i>	20.0%	9.4%	50.0%	91
<i>Others</i>	59.5%	9.4%	37.5%	120
Percent of Children (6-18) Who Have Repeated a Grade (1-12)				
<i>All Immigrant Children</i>	3.7%	2.4%	3.5%	857
<i>Latin Americans</i>	4.0%	1.3%	6.4%	572
<i>Asians</i>	0.0%	4.1%	0.0%	160
<i>Others</i>	2.5%	2.0%	0.0%	120

Table 9: Impact of Separation During Migration on Grade Repetition and High School Drop-Outs For Different Groups

Group	High School Drop-Out			Grade Repetition (Latin Americans Only)		
	Migrated with Parents ³	Separated during Migration ³	Difference ^{2,3}	Migrated with Parents ³	Separated during Migration ³	Difference ^{2,3}
	(Compared to U.S.-Born)			(Compared to U.S.-Born)		
All	-0.165 (.119)	0.001 (.136)	0.166 **			
By Region of Origin						
Latin America	-0.105 (.157)	-0.035 (.193)	0.070	-0.068 (.033) **	-0.032 (.025)	0.036
Asian	0.410 (.438)	0.608 (.481)	0.198			
Other	-0.554 (.326)	-0.376 (.37)	0.178			
Gender						
Girls	-0.055 (.197)	0.107 (.215)	0.163 *	-0.010 (.052)	-0.043 (.032)	-0.033
Boys	-0.285 (.175) *	0.130 (.21)	0.415 *	-0.099 (.042) **	-0.017 (.043)	0.082 **
Legal Status of Parents before receiving a green card						
Undocumented	-0.189 (.137)	0.021 (.168)	0.210 **	-0.094 (.032) ***	-0.003 (.032)	0.090 **
Documented	-0.144 (.163)	-0.016 (.164)	0.128 *	-0.038 (.055)	-0.085 (.046) *	-0.047
Age of Migration						
0-6	-0.107 (.123)	-0.110 (.147)	-0.003	-0.062 (.032) *	-0.122 (.058) **	-0.059
7-11	0.090 (.182)	0.106 (.18)	0.016	-0.234 (.127) *	-0.136 (.138)	0.098 *
12-18	0.073 (.243)	0.361 (.258)	0.288 ***	-0.318 (.193) *	-0.128 (.206)	0.190 *
Ages of Separation						
0-6	0.002 (.101)	-0.078 (.119)	-0.080	-0.025 (.029)	-0.025 (.024)	0.000
7-11		0.246 (.109) *	0.244 **		0.070 (.068)	0.095 *
12-18		0.144 (.134)	0.142 *		0.112 (.144)	0.137
Age						
6-12 Years Old				0.028 (.049)	-0.008 (.014)	-0.035
13-18 Years Old				-0.136 (.055) **	-0.073 (.053)	0.063 **

Notes:
 1. * = Significant at 10%, ** = Significant at 5%, *** = Significant at 1%
 2. Significance levels for the difference are for the hypothesis that the coefficient on separated during migration is greater than the coefficient on migrated with parents.
 3. Standard errors are robust to heteroskedasticity.

We estimate a regression where the dependent variable is one if the child is a high school dropout, and zero otherwise. The independent variables in the dropout regression are the same as those in the education gap and grade repetition regressions. The full results of this regression are presented in appendix table A2. The coefficients on the migration dummy variables are presented in table 9. The coefficient estimates on the migration dummy variables suggest that immigrant children who were separated from their parents during migration are more likely to drop out than those children who immigrated with their parents (while immigrant children who migrated with their parents are less likely to drop out than those born in the U.S.) The signs and significance levels for the other variables in the regression are similar to those reported in the education gap regressions.

When we look at the impact of separation for different groups, the results are generally similar to the results of the education gap and grade repetition regressions (see Tables 9 and 10). Specifically, the impact of separation is larger for children whose parents were undocumented before they received their green cards and is largest for children who migrated at older ages and who were separated from their parents as teenagers. 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 the variable indicating the number of years of separation was negative and not significant at any reasonable level of significance. As in the education gap regressions, the impact of separation from both parents is greater than the impact of separation from only one parent, and larger when the child is separated from his/her mother compared with father.¹³ The only difference from the results of the education gap regression is that the impact of separation on dropout rates is larger for boys than for girls. After controlling for other factors, predicted dropout rates for boys separated from their parents during migration are 41.5 percentage points higher than for boys who migrated with their parents.

For all types of immigrant children, there is something about separation during migration (beyond just the impact of migrating) that causes teenage child immigrants to have higher dropout rates. Predicted dropout rates for children who migrated with their parents are almost always lower than dropout rates for U.S.-born children.

c) Grade repetition

For a subset of the children in our sample, we have data on whether their parents report that they have repeated a grade. The sample size for this measure is less than half that of the education gap (857 compared to 1753). Table 8 presents the percent of children in our sample who have repeated a grade. In general, fewer report having repeated a grade than have an education gap. For Asians and “others,” no children who have been separated during migration report having repeated a grade. This could be because there are few children in these groups

¹³ We examined the same alternative specifications for the dropout regressions as for the education gap and grade repetition regressions. Probit estimation results in similar signs, significance levels and magnitudes for all coefficients. Adding family size did not change the signs of the migration coefficients nor the signs of the difference between those separated during migration and those who migrated with their parents, although it did reduce the number of these differences that were statistically significant. Adding country of origin dummy variables had a bigger impact on the dropout regressions than it did in the education gap and grade repetition regressions. Adding country of origin dummy variables for immigrants as an explanatory variable made the impact of separation during migration statistically insignificant (although the signs of the differences did not change).

who repeated a grade, or it could be because the sample size for these cells is too small to be representative (the sample sizes in these cells are 37 and 20, respectively). The data only allow us to conclude that separation may have an impact on grade repetition for Latin American immigrants. For immigrant children from Latin America, children separated from parents during migration are more likely to have repeated a grade compared with children who migrate with their parents. On average, 6.4% of children separated from parents during migration have an education gap, compared to only 1.3% for those born abroad but who migrated with their parents. On the other hand, the probability that a child has repeated a grade is greater for the U.S. born than for those born outside of the U.S. who immigrated with their parents. Once again, this suggests that for Latin American immigrants there is something about being separated from parents during migration (beyond simply the process of migration) that is affecting the educational success.

**Table 10: Impact of Separation During Migration on Drop-outs and Grade Repetition
For Separation from One or Both Parents, from Mother or Father**

	Migrated with Parents	Separated From One Parent During Migration	Separated From Both Parents During Migration
	(Compared to U.S. Born)		
From High School Drop-Out Regressions			
All Immigrants	-0.154 (.119)	-0.009 (.137)	0.120 (.177)
Latin Americans	-0.098 (.158)	-0.038 (.194)	0.037 (.258)
From Grade Repetition Regressions			
Latin Americans	-0.065 (.034) *	-0.045 (.026) *	0.048 (.09)
	Migrated with Parents	Separated From Father During Migration	Separated From Mother During Migration
	(Compared to U.S. Born)		
From High School Drop-Out Regressions			
All immigrants	-0.158 (.142)	-0.116 (.169)	0.209 (.174)
Latin Americans	-0.138 (.202)	-0.192 (.249)	0.123 (.212)
From Grade Repetition Regressions			
Latin Americans	0.000 (.038)	-0.001 (.024)	0.088 (.06) *

Notes:
 * = Significant at 10%
 ** = Significant at 5%
 *** = Significant at 1%

We estimate a regression where the dependent variable is one if the student repeated a grade, and zero otherwise. We estimate this regression using data only for Latin American immigrants. The independent variables in the grade repetition regression are the same as those in the education gap regression. The full results of this regression are presented in Appendix Table A2. Table 9 presents the coefficients on the migration dummy variables from this regression for different types of immigrant children. The coefficient estimates on the migration dummy

variables suggest that, in general, migrants are less likely to have repeated a grade than are the U.S.-born children of immigrants. However, when we compare migrants with migrants, the results suggest that immigrant children who were separated from their parents during migration are more likely to repeat a grade than those children who migrated with their parents. The signs and significance levels for most of the other variables in the regression are similar to those reported in the education gap and dropout regressions. One difference is that, unlike in the education gap regressions, there is no significant difference in the probability of grade repetition between girls and boys, nor is there a significant impact of having parents with better English proficiency.

When we look at the impact of separation for different groups, with one exception the results are similar to those from the education gap regressions (see Tables 9 and 10). The impact of separation is larger for children whose parents were undocumented before they received their green cards, is largest for children who migrated at older ages and is largest for children who were separated from their parents as teenagers. As in the education gap regressions, when we add a variable that indicates the number of years a child was separated from at least one parent, the coefficient on the variable indicating the number of years of separation was negative and not significant at any reasonable level of significance (the separation dummy variable remained positive and was statistically significant). This implies that the length of the separation from parents is not an important determinant of grade repetition, after we control for the age of migration and age of separation. As in the education gap regressions, the impact of separation from both parents is greater than the impact of separation from only one parent, and larger when the child is separated from his/her mother compared to father. Finally, as with the education gap regressions, we find evidence that separation only has an impact on teenagers (and not on younger children). The only difference from the education gap regression results is that the grade repetition regression results suggest that the impact of separation on grade repetition is larger for boys than girls.

In general, for Latin American immigrants the impact of separation during migration is similar to the impact of separation on the education gap, although the magnitudes of the impacts are smaller.¹⁴

d) Woodcock-Johnson test scores

For a subsample of up to two 6-12 year old children per household, we have data on Woodcock-Johnson achievement test scores. It is unfortunate that these scores are only for 6-12 year olds, since in the previous quantitative analysis we did not find an impact of separation during migration for this age group. Nor do we find an impact of separation on test scores for this age group.

¹⁴ We examined the same alternative specifications for the grade repeat regressions as for the education gap regressions. For example, Probit estimation results in similar signs, significance levels and magnitudes for all coefficients. Adding country of origin dummy variables for immigrants as an explanatory variable did not affect the signs or significance levels of the differences between those separated during migration and those who migrated with their parents (although it did lower the magnitude of the migration variables because the country of origin dummy variables captured much of the impact of migration). Adding family income did not change the signs of the migration coefficients nor the signs of the difference between those separated during migration and those who migrated with their parents, although it did reduce the number of these differences that were statistically significant.

Table 11 presents the percentage difference between the test scores of immigrants and the test scores of the U.S.-born children of immigrants, standardized by the grade the children are attending. Controlling only for grade attending, test scores for immigrants who migrated with their parents are always higher than for U.S.-born children. However, the impact of separation during migration on test scores is mixed. For Latin Americans, test scores for those separated during migration are always lower than test scores for those who migrated with their parents.

Table 11: Woodcock-Johnson Achievement Test Scores By Immigration Experience and Region of Origin (For Ages 6-12; grades 1-7)
A POSITIVE NUMBER INDICATES THAT IMMIGRANTS SCORE HIGHER THAN U.S.-BORN

ALL IMMIGRANTS			
Percent Difference Between Test Scores of Immigrant Children and U.S.-born Children of Immigrants			
Test	Migrated with parents	Separated during migration	Sample Size
<i>Letter-Word Identification (Vocabulary--test 1)</i>	23.6%	11.7%	861
<i>Calculation (Math-test 5)</i>	9.2%	5.9%	834
<i>Passage Comprehension (Reading-test 9)</i>	18.3%	14.7%	831
<i>Applied Problems (Math-test 10)</i>	13.4%	5.9%	819
LATIN AMERICANS			
Percent Difference Between Test Scores of Immigrant Children and U.S.-born Children of Immigrants			
Test	Migrated with parents	Separated during migration	Sample Size
<i>Letter-Word Identification (Vocabulary--test 1)</i>	22.1%	-3.5%	569
<i>Calculation (Math-test 5)</i>	11.6%	-1.6%	553
<i>Passage Comprehension (Reading-test 9)</i>	16.2%	3.0%	547
<i>Applied Problems (Math-test 10)</i>	11.6%	-0.5%	539
ASIANS			
Percent Difference Between Test Scores of Immigrant Children and U.S.-born Children of Immigrants			
Test	Migrated with parents	Separated during migration	Sample Size
<i>Letter-Word Identification (Vocabulary--test 1)</i>	5.2%	3.1%	136
<i>Calculation (Math-test 5)</i>	10.6%	10.7%	129
<i>Passage Comprehension (Reading-test 9)</i>	2.5%	0.1%	131
<i>Applied Problems (Math-test 10)</i>	4.5%	6.1%	131
OTHERS			
Percent Difference Between Test Scores of Immigrant Children and U.S.-born Children of Immigrants			
Test	Migrated with parents	Separated during migration	Sample Size
<i>Letter-Word Identification (Vocabulary--test 1)</i>	4.9%	-1.5%	158
<i>Calculation (Math-test 5)</i>	5.1%	1.4%	154
<i>Passage Comprehension (Reading-test 9)</i>	3.6%	5.1%	154
<i>Applied Problems (Math-test 10)</i>	8.4%	-1.8%	149

However, for Asians and those from other areas of the world this is not always true; for some tests, scores for those separated during migration are higher than for those who migrated with their parents. Therefore, a comparison of the standardized test scores does not provide support for the hypothesis that separation during migration has a negative impact on achievement test scores for 6-12 year olds.

To control for other factors that may affect the test scores of children of immigrants, we ran regressions where the dependent variable is the log of the test score and the independent variables include dummy variables for grade attending, as well as the same independent variables used in the education gap regressions. There are also some additional independent variables in the test score regressions. For this subsample, we have data on the English proficiency of the student, and we include this variable in the regression. We also include three other variables that control for the way in which the tests were administered. Specifically, students whose primary language at home is Spanish were identified, and then, as an experiment, randomly assigned to take the test in Spanish or in English. Akresh and Akresh (2008) have shown that the impact of being forced to take the test in Spanish depends on how long the immigrant child has lived in the United States. For recent immigrants, taking the test in Spanish improved test scores, while for those who have lived a longer fraction of their lives in the United States being forced to take the test in Spanish lowered test scores. To capture all of these effects we include three variables: i) a dummy variable indicating whether the child is eligible for the experiment (if Spanish is spoken at home), ii) a dummy variable indicating whether the child took the test in Spanish (=1) or English (=0), and iii) an interaction between the percent of their life the child has lived in the U.S. and whether they took the test in Spanish. We expect that living in a household where the primary language is Spanish will reduce test scores. However, because we expect that being assigned to take the test in Spanish will only help new arrivals, and may reduce test scores for children who have been in the U.S. for a long time, we expect the coefficient on variable (ii) to be positive but the coefficient on variable (iii) to be negative.

The results of the achievement test score regressions suggest that, for 6-12 year olds, separation during migration (compared with migrating with parents) does not have a significant affect on achievement test scores (see Table 12). Compared to the coefficient on the dummy variable indicating that the child migrated with parents, the coefficient on the dummy variable indicating that the child was separated during migration is lower for two tests (letter-word identification and applied problems) and higher for two tests (calculation and passage comprehension). Further, for all but the calculation test, the difference between the coefficients on these two immigration variables is not statistically significant.

The coefficients on the rest of the variables in the test score regressions are of the expected signs and are generally statistically significant. Higher English proficiency, parents' English proficiency, more years of residence in the United States, and living in a two parent family increase test scores. Having parents who were undocumented before receiving their green cards lowers test scores. Girls have higher test scores than boys. The variables capturing the Spanish language experiment have the expected signs and are generally statistically significant.

**Table 12: Woodcock-Johnson Test Score Regression
(For Ages 6-12; grades 1-7)**

Dependent Variable: Log of Test Score

Explanatory Variable	TEST			
	Letter-Word Identification (Vocabulary)	Calculation (Math)	Passage Comprehension (Reading)	Applied Problems (Math)
Immigration Variables (reference group is U.S. born)				
Immigrated with parents	0.033 (.074)	0.031 (.051)	0.053 (.058)	0.055 (.047)
Separated during migration	-0.009 (.084)	0.034 (.058)	0.091 (.067)	-0.009 (.055)
Region of Origin				
Latin American	-0.037 (.079)	-0.008 (.056)	0.080 (.065)	0.033 (.053)
Asian	0.098 (.061) *	0.104 (.042) **	0.068 (.048)	0.075 (.039) *
Parent's education dummies	Insig	Sig *	Sig *	Sig **
Parent's occupation dummies	Insig	Insig	Insig	Insig
Other variables				
English Skill (1=best)	-0.014 (.029)	-0.032 (.02) *	-0.064 (.023) ***	-0.036 (.019) *
Age	0.021 (.025)	0.051 (.017) ***	0.025 (.02)	0.030 (.017) *
Parent's English Skill (1=best)	-0.007 (.016)	-0.004 (.011)	-0.030 (.013) **	-0.010 (.01)
Parent Undocumented	-0.134 (.056) **	0.011 (.039)	-0.075 (.044) *	-0.021 (.036)
Took Test in Spanish	0.270 (.171)	-0.125 (.117)	0.019 (.134) ***	0.048 (.109) **
% life in U.S *	-0.006 (.002) ***	0.000 (.001)	-0.003 (.001) *	-0.001 (.001)
Speak Spanish at Home	0.115 (.071) *	0.047 (.05)	-0.012 (.059)	-0.001 (.048)
Years of Residence	0.017 (.012)	-0.002 (.008)	0.015 (.009)	0.001 (.008)
Traditional Family	-0.009 (.047)	0.012 (.033)	0.055 (.037)	0.103 (.031) ***
Gender	-0.047 (.034)	0.000 (.024)	-0.086 (.027) ***	-0.021 (.022)
Intercept	3.847 (.346) ***	2.734 (.238) ***	2.430 (.145) ***	3.323 (.225) ***
Grade Attending	YES	YES	YES	YES
R-square	0.3672	0.5612	0.4614	0.3902
Number of observations	749	727	722	710

Notes: Traditional Family = 1 if child lives with both biological parents, 0 otherwise
 Gender = 1 if child is male, 0 if female
 Teen migrant = 1 if child migrated at age 12 or later, 0 if migrated at a younger age.
 English Skill = 5 is worse and 1 is best, reported by interviewer.
 * = Significant at 10%
 ** = Significant at 5%
 *** = Significant at 1%

The impact of separation during migration on the test scores of 6-12 year olds is mixed—for some tests and regions those separated from parents during migration have higher test scores, while for other tests and regions the results are the opposite (Table 13). Further, the results regarding this difference are almost always statistically insignificant. This is true for immigrants from every part of the world and for all subsets of the data. In summary, the achievement test score regressions provide no evidence in support of the hypothesis that separation during migration has an impact on the educational success of 6-12 year olds.¹⁵

In summary, our quantitative analysis provides no evidence that separation during migration had a significant negative impact on the achievement test scores of 6-12 year old immigrants.

Table 13: Impact of Separation During Migration on Test Scores For Different Groups and Tests

Dependent Variable: Log of Test Score

Group/Test	Migrated with Parents (Compared to U.S. Born)	Separated During Migration	Difference ²
All			
Letter-Word ID	0.033 (.074)	-0.009 (.084)	-0.042
Calculation	0.031 (.051)	0.034 (.058)	0.003
Passage Comp.	0.053 (.058)	0.091 (.067) *	0.038
Applied Problems	0.054 (.047)	-0.009 (.055)	-0.063 *
Latin American Immigrants			
Letter-Word ID	-0.061 (.174)	-0.177 (.159)	-0.116
Calculation	-0.003 (.11)	-0.008 (.1)	-0.005
Passage Comp.	-0.046 (.126)	-0.002 (.114)	0.043
Applied Problems	0.034 (.106)	-0.079 (.096)	-0.113
Asian Immigrants			
Letter-Word ID	0.172 (.052) ***	0.188 (.065) ***	0.016
Calculation	0.192 (.068) ***	0.259 (.085) ***	0.068
Passage Comp.	0.112 (.072) *	0.209 (.089) **	0.097
Applied Problems	0.065 (.049) *	0.077 (.061)	0.012
Other Immigrants			
Letter-Word ID	-0.007 (.07)	-0.056 (.09)	-0.049
Calculation	-0.020 (.072)	-0.079 (.096)	-0.059
Passage Comp.	0.061 (.091)	0.023 (.122)	-0.038
Applied Problems	0.015 (.07)	-0.098 (.094)	-0.112 *

Notes:

1. * = Significant at 10%

** = Significant at 5%

*** = Significant at 1%

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

¹⁵ These results are not driven by difference in English language skill (a new variable in these regressions). When we exclude the English language skill variable from the regressions, the results do not change. We also re-estimated the test score regressions using several different subsets of the explanatory variables. The results regarding separation during migration are never statistically significant.

iv) Summary and interpretation of the results of quantitative analysis

Taken together, the results of the quantitative analysis provide evidence that children who are separated during migration have less educational success than children who migrated with their parents. That is, there is something about being separated during migration that has a negative effect on educational success that goes beyond a generalized impact of immigrating. Indeed, we find no evidence that those who migrate with their parents do worse in school than children of immigrants born in the United States (there is evidence that on some measures of educational success, those who immigrated with their parents actually do better than children of immigrants born in the United States). The negative impact of separation shows up most strongly when we analyze the determinants of the education gap and the probability of dropping out of high school. The negative impact of separation on the education gap and probability of dropping out are likely related phenomenon. Deming and Dynarski (2008) show that children who are older than others in their grade are significantly more likely to drop out of high school and less likely to complete college. The negative impact of separation during migration is larger if parents were undocumented before receiving their green cards, larger for children separated from mothers and/or both parents compared to separation from fathers, and largest for immigrants from Latin America.

We also find evidence of an impact of separation on the probability of repeating a grade, but only for Latin American students (not for Asians or immigrant children from other parts of the world). The magnitude of the impact of separation on the probability of repeating a grade is also greater than the magnitude of the impact of separation on the education gap and on dropout rates. This suggests that immigrant children separated from parents fall behind others in their grade for reasons that are not directly related to grade repetition.

The impact of separation is larger for children who migrated at older ages and for children who were separated from their parents during their teenage years. We find no evidence that these age results reflect the probability that children separated from their parents at older ages are likely to have been separated from their parents for a longer period of time. That is, our regression results suggest that the age at which children are separated from their parents, not the length of time, has the biggest influence on the impact of separation. There is something about being a teenager that makes the negative impact of separation during migration and family reunification worse. The negative impact of separation on educational success only shows itself for teenagers. We find no empirical evidence of a negative impact on children who are less than 13 years old.

There are several reasons why we might expect separation to have a bigger impact on those who were separated from parents as teenagers. One set of explanations has to do with the children and the special challenges faced by teenagers. In our focus groups, for example, parents suggested that younger children are more responsive to parental expectations regarding success in school compared with teenagers. School counselors made similar comments. The teenage years are already a period when the child-parent relationship experiences significant strain. It is likely that adding family separation and reunification to the mix adds an additional level of stress to this process. The evidence is also clear that language acquisition is easier for younger children, and some researchers have argued that the best time to learn a language is before puberty. According to this view, at puberty there is a significant and dramatic decline in the ability of children to learn languages (Scovel, 2000). Since adaptation is already harder for those

separated from their parents, this suggests that teenagers with poor English skills may have an even harder time adapting to U.S. schools than younger children with poor English skills.¹⁶

Another set of explanations for why the impact of separation is likely to be greater for teenagers focuses on the different nature of elementary, middle, and high school in the United States. Elementary schools are generally more supportive of students personally than are middle and high schools; teachers are with the same children all day and get to know them and their individual problems. Elementary school teachers also may, in general, be better able to help children separated during the migration experience adapt to U.S. schools because elementary school teachers have training in teaching English reading and writing, while it is generally assumed by middle and high school teachers that students already know how to read and write English. School counselors suggested to us that these differences could explain why those who were separated and reunited with their families as teenagers have a more difficult problem adapting to U.S. schools.

The larger impact of separation on the education gap compared to the impact on grade repetition suggests that the immigrant children separated from parents fall behind others in their grade for reasons that are not directly related to grade repetition or the student's education in the United States. One possible reason could be that the education of these children was interrupted in their home country or during the migration process. Many Central American immigrants are from rural areas, where interrupted education for children is common, especially for older children who can work productively on farms. This could also explain why children who migrated when they were older are more likely to have an education gap or drop out. Because older children are more likely to be taken out of school to work on the farm than younger children, it is reasonable to suppose that only older immigrants will be more likely to have an education gap.

Another likely reason why immigrant children might be older than others in their grade in the United States is that the process of migration may take time away from school or that, when they enter school in the United States, immigrant children are assigned to a lower grade than the grade that they completed in their home country. Finally, a growing literature suggests that older children who migrate never really “drop in” to school, and are more interested in entering the labor market (and not education) as a means of economic advancement (Vernez, Abrahamse and Quigley, 1996). In the next, final, qualitative stage of this study, we explore these alternative explanations for the higher education gap and dropout rates of those immigrants separated from their parents during migration.

The education gap, grade repetition, and high school dropout rates are all, in their own ways, measures of educational attainment. When we turn to test scores, we are examining whether separation has an impact not only on attainment, but also on the quality of that educational attainment. Unlike for our measures of attainment, we find no evidence in the quantitative data that achievement test scores for 6-12 year olds differ between those children who were separated during migration and those who immigrated with their parents. This may reflect our previous results, where we found no impact of separation on children who migrated before they were teenagers. It might also suggest that while separation has an impact on education levels (attainment) it does not have an impact on the educational performance of

¹⁶ The teenage years are already a period when the child-parent relationship goes through significant changes. It is likely that adding family separation and reunification to the mix adds an additional level of psychological stress to this process.

children with similar educational attainment. Using data from future waves of the New Immigrant Survey we hope to be able to determine which of these explanations are true. The New Immigrant Survey is intended to be a panel data set where the same immigrants are interviewed at several points in time. Future rounds of the New Immigrant Survey will include achievement test scores on the same children as in our data set when they are older, so we should be able to examine the impact of separation on the test scores of older children.

VI. Stage 3: Qualitative II

i) Focus Group

In November of 2008 we conducted a focus group with eight parents (all of them mothers) of children that had been separated from their parents for at least two years because of migration and who are currently attending schools in Baltimore, Maryland. This focus group also included one young adult who had experienced separation and reunification from her parents during migration. As in the previous focus groups, the Hispanic Apostolate of Baltimore recruited group participants and provided the space for the meeting. Focus group participants were women from Honduras, El Salvador and Mexico. They were all housewives. The age of participants was 25-39 years.

The main themes discussed in this focus group explored further some of the findings of the quantitative analysis. Themes were centered on the educational experiences of separated and reunified children, and on the academic consequences of separation and reunification in immigrant children. We were looking for insights on characteristics or factors that negatively affect school performance among immigrant children who were separated from their parents and reunified in the U.S. after at least two years of being apart.

Mothers verified that immigrant students who enter school in the United States 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. Being assigned to a grade lower than they completed in their home country makes the student older than the rest of the students in his/her class and, as one group participant stated, made her child vulnerable to teasing and disrespect from other kids in the family and at school.

Lack of knowledge of English language is considered as one of the main constraints for the academic achievement of the students at school, followed by the inability of parents to effectively help their children to overcome the problem. Not knowing the language or the school system, parents are poorly equipped to help their children to succeed in American schools. In this context, the inability of parents to help their children with homework (because of the parents' lack of English skill) was identified as a particular problem.

According to mothers in the focus group, general behavior problems that affect school achievement in indirect ways include the difficulty that Latin American immigrant children have getting along with other minority students, and the psychological vulnerability produced by the experiences of separation and reunification from parents. Related to the last point, mothers pointed out that the psychological vulnerability produced by family separation and reunification allow gangs members to approach and co-opt recently arrived children.

Asked about ways in which social policies at the county, state or school level can help and support children separated and reunited with their parents, our group participants mentioned:

a) school counselors fluent in Spanish; b) teachers calling parents whenever children have problems (using parent's cell phones if necessary); c) help with homework in after school programs; d) and an increase school discipline, more rules, dress code or uniform and punishment. Regarding the last point, the Latin American mothers in our focus group all agreed that corporal punishment in school is necessary. In general mothers were convinced that physical punishment is a convenient tool for education.

ii) Teacher Survey

We designed an online, anonymous survey for teachers that complements and expands our understanding of the quantitative and focus group results. The Appendix to this paper contains a copy of the questionnaire for the teacher survey.¹⁷ The questions on the teacher survey are centered around five themes: (a) what are the biggest challenges facing Latin American immigrant children in school; (b) are Latin American immigrant children older than others in their grades, and if so why; (c) are teachers aware of the prevalence and potential problems of family separation during migration, and if so what are the problems they see most often; (d) which immigrant children have an easier time adjusting to the U.S. school system—teenagers or younger children, boys or girls; (e) which existing programs or potential programs would most help in improving the performance of Latin American immigrants in school?

To obtain teacher responses we e-mailed a letter to all teachers of English for Speakers of Other Languages (ESOL) in the northern region of the Prince George's County Maryland Public School System. In addition, we emailed the letter to all teachers (not only ESOL teachers) at the two high schools with the largest proportion of immigrant students in the Prince George's County Public School system (Northwestern and High Point high schools). The e-mail provided teachers with the URL and a link to the online survey and requested that they visit the site and complete the questionnaire. We were clear that the survey was voluntary and completely anonymous. The Appendix to this paper contains a copy of this e-mail. We focused on high school because, according to our quantitative analysis, it is in high school where separation during migration has the biggest negative effect on success at school. We focused on Latin American students because they are by far the largest group of immigrant students in Prince George's County schools, as well as other Maryland and U.S. schools, and because the quantitative results suggest that the impact of separation is larger for Latin American immigrants than for those from other areas of the world.

We emailed the letter to 547 teachers (383 ESOL teachers and 174 teachers of other subjects at the two high schools). We received 75 completed questionnaires, 69 from ESOL teachers (an 18% response rate) and 9 from high school teachers in other subjects (a 5% response rate). Of the respondents, 43% taught in elementary school, 20% in middle school, and 44% in high school (the percentages add up to more than 100% because some ESOL teachers see students at all levels). The median length of time respondents had been teaching was 16 years. Latin American immigrant students of our respondents came principally from Mexico, Central America and the Dominican Republic; 97% of teachers have students from El Salvador, 77% from Mexico, 73% from Guatemala, 59% from Honduras, 36% from the Dominican Republic and 21% from Nicaragua.

¹⁷ The questionnaire can be viewed at the following URL: <http://www.umbc.edu/mlt/teachers/>

a) What are the biggest challenges facing Latin American immigrant children in school?

The most frequently noted challenges facing Latin American immigrant students were lack of knowledge of English and lack of academic preparation (90% of teachers who responded cited both of these as challenges facing Latin American immigrant students). When asked what why Latin American immigrant children arrived in the United States with a lack of academic preparation, the most common response was that the education of the children had been interrupted at some point before or during migration.

The majority of teachers also identified emotional problems because of family separation and reunification as a challenge facing Latin American immigrant students. However, relatively few teachers identified behavior or discipline problems as an issue, especially for newly arrived immigrants. Some did note, however, that behavior and discipline problems tended to become more of an issue the longer the immigrant student has been in the country.¹⁸ The most common discipline problem mentioned was the risk that boys who have been in the country for a few years would join gangs (the Salvadoran gang MS13 was specifically mentioned). The most common health problems mentioned were lack of adequate dental care and immunizations

Many teachers also identified low levels of involvement among the parents of Latin American immigrant children in their child's education as a problem. One particularly common comment was that parents provided very little help to their children with homework. Teachers saw this problem arising from cultural differences, the long hours worked by immigrant parents, and the lack of English skill among immigrant parents (where students often have to translate for their parents in interactions with teachers and other school officials). One ESOL teacher wrote "Many classroom teachers complain that Hispanic parents do not make sure that their children do homework (as compared to Asian parents). As an ESOL teacher, I see that many parents are working long hours; however, even those students with mothers at home, often do not do homework. Sometimes this is corrected after conferencing with the teacher and our Spanish-speaking parent liaison, but usually homework remains erratic."

Another a problem that makes it difficult for parents to fully participate in the schooling of their children is the undocumented status of many Latin American immigrant parents. In response to an open ended question about possible challenges facing immigrant students in schools, the most common response we received was legal issues surrounding undocumented immigrants (32% of teachers mentioned this). Several teachers wrote that parents were reluctant to come to school meetings, volunteer in school or provide any personal information to teachers because they were afraid their undocumented status would come to the attention of authorities.¹⁹ The impressions of teachers are consistent with the conclusion from the quantitative analysis that children separated during migration are more likely to have less educational success if their parents are undocumented.

Several teachers also expressed the view that high-stakes standardized testing mandated by the No Child Left Behind act discouraged immigrant students from finishing high school (in Maryland, high school students are required to pass a set of subject specific standardized tests in

¹⁸ One teacher writes that behavioral problems are "very minimal—most are respectful until they become fully acculturated, then some problems crop up." Another writes "They are eager and wonderful when they arrive. They quickly learn American behavior or get caught up by MS13."

¹⁹ An example of how school rules can discourage undocumented parents from participating fully in their children's schooling comes from Prince George's County, where any parent who volunteers to work with students or chaperone field trips is required to be fingerprinted by county authorities.

order to graduate). One teacher writes “High stakes state exams become the focus of instruction and classroom teachers become frustrated with what they feel is the slow progress of English Language Learner (ELL) students.”

b) Are Latin American immigrant children older than others in their grades, and if so why?

Most teachers agreed that immigrant children are often older than others in their grade (70% of those who responded to this question reported that Latin American immigrant students are at least sometimes older than others in their grade). This is consistent with the conclusion from the quantitative analysis and the focus groups that children separated from parents as teenagers have less educational success than children who are reunited with parents at younger ages. When asked why they believe this has happened, the results are consistent with our expectations. The most common response (from 70% of respondents) was that immigrant children are assigned to a grade below the grade level in their home country. The next most popular choices were that they had repeated a grade in the United States (55%) or had missed a year of schooling during the migration process or interrupted schooling in their home country (50%). One teacher wrote “many students are 16, 17 or 18 in 9th grade—if they don’t have transcripts available from the home country, or if they were out of school working for a year or two.” Teachers also noticed that students who had interrupted schooling in their home countries tended to come from rural areas.²⁰

c) Are teachers aware of the prevalence and potential problems of family separation during migration, and if so what are the problems they see most often?

Yes, the teacher survey results suggest that teachers understand that separation during migration is a common phenomenon for immigrant students, and that it may lead to problems in school. Most of those who responded to this question said that family separation during migration was common among the Latin American immigrant children that they teach. Teachers reported that, on average, almost 40% of the immigrant students in their classes had been separated during migration. The teachers recognized that separation has negative effects on the relationship between parents and children, with 45% of respondents noticing problems in the relationships between children separated during migration and their parents. Several teachers identified resentment toward parents because of perceived abandonment and difficulties with new siblings or step parents as particular problems. One teacher wrote “Yes, they sometimes have trouble fitting into a family that has grown while they were still in their home country, i.e., new brother or sister born to parents in this country, or they have a new step parent they don’t know. Parents in this situation often don’t have a lot of time to spend with their children even after they are reunited because they are working to make ends meet.” “One student came in the 4th grade with no English and joined his father and the new wife and his new U.S.-born little brother. The little brother was ashamed of him and made fun of him in front of the other children at the bus stop for not speaking English. That same boy grew up to become a gang leader.”

²⁰ Counselors in Prince George’s County Public Schools (who are responsible for assigning immigrant students to a grade) told us that immigrants who enter in elementary schools are assigned to a grade based on their age, regardless of academic skills, while immigrants who enter in high school are assigned to a grade based on their academic skills (primarily English language proficiency), regardless of their age. The result is that most immigrants who enter the school system in high school, whatever their age, end up being assigned to 9th grade. Once students are assigned to a lower grade they remain behind—students generally are not allowed to skip a grade to catch up to their peers.

Several teachers also pointed to another perceived problem with children from transnational families (who have family members in both the U.S. and home country); a tendency for children to miss part of the school year because they travel to their home country to be with their extended family. Several teachers also noted that many such students return to their home country and family members during the summer break, and argued that this travel increased the loss of knowledge most students experience during summer break, making it more difficult for immigrants from transnational families to catch up to fellow students when they return to school in the fall.

d) Which immigrant children have an easier time adjusting to the U.S. school system--teenagers or younger children, boys or girls?

Almost all teachers (90%) who responded to this question agreed that children who immigrate when they were older have a harder time adjusting to the U.S. school system, and that these problems are particularly noticeable among those who have been separated from their families. This is consistent with the conclusion from the quantitative analysis. 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, having to make less of a cognitive leap.” “The parents are often new at raising teenagers, which is never easy, anyway. They left cute little kids and spent years talking on the phone, but it's hard to build a new relationship.” Another teacher wrote “Middle schools are not the friendliest environment. There is no easing into the system. In many middle schools newcomers are easy prey for gang recruiters who offer protection from bullies and a sense of family and belonging.”

On the other hand, teachers were almost evenly divided on whether immigrant girls or boys have more problems adjusting to the U.S. school system; 50% of those who responded reported no difference between boys and girls and those who identified a difference were split between whether boys or girls had a more difficult time adjusting to the United States. Those who pointed to boys as having more problems tended to focus on the perceived higher likelihood that boys (especially teenage boys) would have discipline problems. Several teachers mentioned problems with boys in gangs. Teachers who pointed to girls as having more problems tended to focus on the heavy responsibilities immigrant girls have at home: they are often responsible for cleaning, cooking and caring for their younger siblings while their parents are working long hours. Several teachers also mentioned that Latin American immigrant girls were reluctant to participate fully in class discussions and other activities.

e) What existing programs or potential programs would most help in improving the performance of Latin American immigrants in school?

Five types of programs were mentioned frequently by teachers as being most helpful in improving the performance of Latin American immigrants in school: (1) English for Speakers of Other Languages (ESOL) programs for students; (2) Spanish speaking counselors who are familiar with the culture of the Latin American immigrants and are aware of the prevalence of family separation during migration; (3) after school help with homework for Latin American immigrant children; (4) support for parents, including Spanish speaking parent liaisons, English classes and workshops to help parents understand the structure of U.S. school systems; and (5) an ESOL summer school that would work as a “bridge program” to ease the transition of immigrant children into U.S. schools.

Most teachers identified ESOL classes for students as the most helpful existing program for improving the performance of Latin American immigrant students in school. This is consistent with the literature.

Many teachers felt that Latin American immigrant students are more likely to confide in and seek the help of counselors if those counselors speak Spanish and are comfortable with the culture from which they came. The best situation is where the counselors themselves are immigrants from the same countries as their students. Interestingly, teachers did not think it is important that the classroom teachers speak Spanish, only that counselors and some staff speak Spanish.

Almost all teachers identified difficulties that immigrant children have with homework as a significant barrier to the success of these children in school. Teachers also recognized that the parents of these children are unable (or unwilling) to provide their children with much help with homework. As a result, the most common suggestion that we received from teachers designed to improve Latin American student performance were for programs where regular classroom teachers provided homework help after school (in “extended day” programs). Once again, none mentioned that it was important for these teachers to be able to speak Spanish, although several mentioned that it was important for the homework help to be provided by classroom teachers who know what is expected of the students in completing their homework. Several teachers also suggested after-school social activities for teenagers that would insulate middle and high schoolers from gangs and allow them to socialize in a safe environment.

The second most common type of program suggested by teachers were programs “to help immigrant parents learn English and to navigate the American school system and the communities in which they live.” Lack of English language skills on the part of parents contribute to the problems children have completing homework, to the lack of involvement of parents in their children’s school, to solving discipline problems at school, and in general to a lack of communication between teachers, administrators and parents. Interestingly, teachers often saw the lack of English language skill of parents to be a bigger problem than the lack of English language skill on the part of the children. Perhaps this is because the school system already has programs in place to help immigrant students learn English, but few programs to help parents. Several teachers suggested that these language classes be held at the child’s school. In this way, the classes serve both to increase the language skills of parents and to make the parents more comfortable with increased involvement at school and increases communication with teachers and school administrators. Several teachers also suggested that English language programs for parents would be most successful if they got “the entire family involved in learning English together.” Some suggested “mommy and me” classes for mothers and younger children.

To facilitate parents’ understanding of their children’s schools, it is seen as important to have school staff that know the language and culture of the parents of their students. One existing Prince George’s County Public School program that was praised by many of the teachers was the “parent liaison” program. Parent liaisons are Spanish speaking staff hired by schools to act as an intermediary between parents and teachers and school administrators. They are often parents of former or current students who themselves emigrated from the same countries as the parents of other students at the school, and so are not only fluent in the language but also comfortable with the culture of parents. Teachers use liaisons when they need to contact parents; liaisons can be present to translate during parent-teacher conferences; and parents use teacher liaisons to communicate concerns to teachers. One teacher wrote “for our school, parent liaisons are most important. We are very lucky to have such a person who is fantastic. She is

bilingual and calls the parents whenever it is needed. We have a huge ESOL population here and she is very friendly with the students, they trust her and she is also friendly with the parents. We have systems in place for those students who start to slip out of line so that with parent help, they stay in line.” Many teachers also mentioned the importance of “parent workshops” to help parents of new immigrant children understand the structure of American school systems.

Several teachers proposed a summer bridge program, limited to new immigrants, to assist in the adjustment from the culture and school system in the home country and the one in the United States. One teacher wrote that “the International Student Counseling Office tries to run acculturation sessions for ESOL newcomers but it is not enough—three one hour sessions.” Another called for “a six week summer bridge program that provides the student with an opportunity to know that he/she is not alone in his/her plight, an opportunity to make friends or acquaintances with peers and instructors prior to attending school, an opportunity to be in the school in which they are registering.”

VII. Conclusions and Policy Implications

The results of our qualitative and quantitative analyses confirm that family separation during migration has a negative impact on the educational success of children that goes beyond the problems experienced by all migrants. The negative schooling impact of separation during migration is more important for children separated from their mothers (as opposed to fathers), for those whose parents who have lived in the United States illegally, and for those who were separated from their parents at older ages and reunited with parents as teenagers.

Family separation during migration matters, and should be taken into account in schools. School counselors in particular should be aware that, compared with non-immigrants and immigrants who migrate with their parents, children separated during migration are more likely to be depressed, to have difficulty adapting to the popular and school culture in the United States (and therefore may be more likely to be attracted into gangs), to have had traumatic experiences during the process of migration, and to have strained relationships with parents and siblings from whom they have been separated. The teachers and parents we surveyed argued that is also important that school counselors (although not necessarily classroom teachers) speak the language and are comfortable with the culture of the immigrant child. If not, students are less likely to trust or accept help from counselors. Useful programs would provide immigrant students with help adjusting to American schools and teen culture, as well as foster a feeling of belonging through connections to peers who model positive behavior. Such programs are not common. "We have no national policies for helping young immigrants who arrive during the middle and high school years" (Suarez-Orozco, et. al., 2008, p. 360) "Montgomery (county) educators said they searched the nation's immigrant-rich school systems and found few examples of programs designed specifically for older teenage immigrants" (de Vise, 2007).²¹

²¹ One successful program directed toward teenage immigrant students who have been separated from their parents during migration can be found in Northwestern High School, in the school district where we conducted our teacher survey, Prince George’s County, Maryland. This program was developed jointly by the Northwestern High School ESOL Intervention Specialist and the Prince George’s County Immigrant School Counseling Office specifically to ease the transition to U.S. schools for immigrants separated during migration. The program includes individual counseling, group counseling sessions, and support groups that include peers who have also experienced family separation but have been in the U.S. for several years. Participants in these support groups, or “reunification groups,” compare personal stories, and discuss the differences between U.S. school culture and that of the

We find that the most significant impact of family separation on school performance is that children separated during migration are more likely to be older than others in their grade. Children separated during migration are also more likely to drop out of high school. These two results are probably related; children who are older than others in their grade are often less motivated to succeed at school, more likely to face pressure to enter the work force, and less likely to complete high school before they reach the maximum age at which they are eligible for free public education (they “age out” of the public school system before they graduate from high school). Immigrant children separated from their parents during migration are more likely to be older than others in their grade for a variety of reasons: they may have repeated a grade either before or after migration, they may have interrupted schooling in their home country in order to work or take care of family members, they may have lost a year or more of schooling because of the trauma of migrating or because of inconsistencies in the timing of the school year between their home country and in the United States, or they may have been assigned to a lower grade than other children their age when they entered school in the United States. When asked which of these was most important, the most common response we received from parents and teachers was that students were assigned to a lower grade in U.S. schools than they had completed in their home country. Most often, this was due to a low level of English proficiency.

We also find that the negative impact of separation during migration is largest for children who immigrated as teenagers. In the statistical analysis, we find consistent evidence that immigrant students who were separated as teenagers from parents are behind others their age in middle school and high school and are more likely to drop out of high school. However, we find no evidence that younger immigrants who have been separated from parents are behind others of their age in the elementary grades. Therefore, in an era of tight budgets, we suggest that programs that address family separation would be most effective if applied in middle and high school rather than elementary school. In particular, our results suggest that it is important to help children who immigrate when they are middle school or high school age to stay in school. Older immigrant students face strong pressure to work to help out their extended families (family members in the United States and by sending remittances to family members abroad). This suggests that one important set of programs to lower high school dropout rates would allow high school students to take classes at night or on the weekend (so as to not interfere with work), to attend high school part-time (around work schedules), and to receive free public school education at older ages (it can take immigrant students longer to finish high school both because they may be working and because they lost years of schooling when they migrated to the United States).²²

immigrant’s home country, difficulties of acculturation, and strategies for success in high school (Bock and Chiancone, 2006).

²² Several school systems in the immigrant-rich Washington, D.C. suburbs have programs in high schools that are focused on educating older students during non-traditional school hours. Younger students (up to 21 or 22 years old) who attend regular high schools can generally transfer and attend these night high schools tuition free, while older students are required to pay tuition. In Prince George’s County, there are four evening high schools, including one at Northwestern High School. In Fairfax County (Virginia) the High School Continuation Program at Arlington Mill High School, although begun in 1929, currently tailors its teaching style to the needs of its primarily immigrant student body. Students at Arlington Mill High School may take special classes for English language learners (HILT), making for an easier transition for recent teenage immigrants into regular high school classes taught in English. Fairfax County (Virginia) public schools offer evening programs at four “transitional ESOL high schools” to provide instruction to older ESOL students (18 and older) who want to earn a high school diploma (the schools are Bryant Alternative High School, Mountain View Alternative High School, Summit Hills Alternative High

In the focus groups and teacher surveys the most frequent policy interventions mentioned were programs to help the parents of students understand the structure and expectations of the schools system in the United States (which can be very different from the school systems in their home countries). One frequent problem that arises in this context is that parents may have very poor English proficiency. Poor English proficiency of immigrant parents was identified as a problem more often in the focus groups and teacher surveys than poor English proficiency of immigrant children. In fact, we were often told that it is the children who translate for the parents in interactions with the school system, not vice-versa. Helpful programs mentioned by parents and teachers included “mommy and me” English classes at local schools and after hours English classes for parents at schools (taught by teachers at those schools so that parents become comfortable with their children’s teachers). Teachers and parents also agreed that, in order to facilitate the participation of parents in the education of their children, it is important to have at least some school staff that speak Spanish and are comfortable in the culture of the immigrant parents.²³

Another area of concern that was mentioned consistently in the focus groups of parents and teacher surveys was homework. Teachers believe that Hispanic immigrant parents are not involved enough in making sure that their children successfully complete homework assignments. Teachers in the survey often attributed this to a cultural difference between Hispanic immigrants and those born in the United States. The parents in our focus groups also identified completing homework successfully as a problem, but pointed to a lack of English proficiency on the part of parents as the primary reason for this. Parents found it difficult to know how to help and to understand what was required when the homework, instructions, textbooks and related materials are all in English only. A common request from parents with limited English skills was to have the homework, instructions and related materials translated into Spanish; without this translation many immigrant parents find it impossible to help students. Many parents and teachers also suggested that immigrant students benefitted greatly from an after school program that provided help to students on homework—where regular classroom teachers provided homework help in “extended day” programs.

In terms of national immigration policy, our results suggest that policies of family reunification should concentrate on reuniting families while the children are still young. Our evidence suggests that young children, even if they have been separated from parents, are better able to adapt to school culture in the United States and do as well as those born in the United States or those who migrate with their parents. On the other hand, if children are not reunited until their teenage years, adapting to and succeeding in the school system in the United States is much more challenging.

School and Woodson Adult High School). The transitional high school programs do not offer a diploma, but offer a way to transition into English language high school classes at these alternative high schools. The transitional high school program appears to have a good reputation among teachers in the area. Several teachers from Prince George’s County in Maryland pointed to the transitional high school program in Northern Virginia as effective, and a program that should be replicated in their school district.

²³ One specific program identified as helpful and successful in our qualitative analysis of the Prince George’s County public school system was the parent liaison program, where schools hire a Spanish-speaking staff member (often a current or past parent of a student in that school) to be someone that parents of immigrant children can consult when they have questions about the school, and whom teachers can use as go-between to communicate with parents who have limited English skills.

Bibliography

Aizenman, N. C., 2006, "Emigration empties Salvadoran Village: Left behind are students and the elderly—and silence," *Houston Chronicle*, May 9, page 6.

Ainsworth, M. D. S., 1989, "Attachments Beyond Infancy," *American Psychologist*, Vol. 44, pp. 709-716.

Akresh, R. and I. Redstone Akresh, 2008, "Using Achievement Tests to Measure Language Assimilation and Language Bias Among Immigrant Children," IZA Working Paper 3532, July.

Amuedo-Dorantes, C., 2008, "Migration, Remittances and Children's Schooling in Haiti," IZA Discussion Paper No. 3657, August.

Barr, Camaron and Tom Jackman, 2005, "Anti-Gang Strategies Lack Unity," *Washington Post*, August 14, page 1.

Behrman, Birdsall and Szekely, 2000, "Intergenerational Mobility in Latin America: Deeper Markets and Better Schools Make a Difference," in N. Birdsall and C. Graham (eds.), *New Markets, New Opportunities?* Brookings Institution Press, Washington, pp. 135-167.

Bernhard, Judith, Patricia Landolt and Luin Goldring, 2005, "Transnational, Multi-local Motherhood: Experiences of Separation and Reunification Among Latin American Families in Canada," prepared by the Latin American Research Group of the Transnational Families project (Ryerson University).

Biblarz, Timothy and Adrian Raftery, 1999, "Family Structure, Educational Attainment and Socioeconomic Success: Rethinking the 'Pathology of Matriarchy'" *American Journal of Sociology*, 105(2), pages 321-365.

Bock, Ramona and Patricia Chiancone, 2006, "Counseling Immigrant Adolescents After Long Term Separation from Their Families," Presentation to the Annual Convention of the American Counseling Association and the Canadian Counseling Association, Montreal, Quebec, Canada, April 1.

Boss, Pauline, "Ambiguous Loss," in M. M. F. Walsh, ed., *Living beyond Loss: Death in the Family*, pp. 164-175, New York: W. W. Norton.

Camaron, S. and J. J. Heckman, 2001, "The Dynamics of Educational Attainment for Black, Hispanic and White Males," *The Journal of Political Economy*, Vol. 109 (3), pp. 455-499.

Camarota, Steven and Nora McArdle, 2003, "Where Immigrants Live: An Examination of State Residency of the Foreign Born by Country of Origin in 1990 and 2000," Center for Immigration Studies, Washington, September.

Case, Anne, Sara McLanahan and I-Fen Lin, 2000, "Educational Attainment in Blended Families," *NBER Working Paper 7874*, September.

Chartrand, Molind, Deborah Frank, Laura White and Timothy Shope, 2008, "Effect of Parents' Wartime Deployment on the Behavior of Young Children in Military Families," *Archives of Pediatrics and Adolescent Medicine*, Vol. 162, No. 11 (November), 1009-1014.

Chiswick, B. R. and Miller, P. W., 2008, "A Test of the Critical Period Hypothesis for Language Learning," *Journal of Multilingual and Multicultural Development*, Vol. 9, No. 2, 16-29.

Deming and Dynarski, 2008, "The Lengthening of Childhood," NBER Working Paper No. 14124, June.

De Vise, Daniel, 2007, "Montgomery Aims to Fill in Gaps in Teen Immigrants," *Washington Post*, March 27, page B1.

Fitzpatrick, Maria D., 2008, "Starting School at Four: The Effect of Universal Pre-Kindergarten on Children's Academic Achievement," *The B.E. Journal of Economic Policy and Analysis*, Vol. 8, No. 1 (Advances), Article 46. Available at www.bepress.com/bejeap/vol8/iss1/art46.

Cascio, Elizabeth, 2005, "School Progression and the Grade Distribution of Students: Evidence from the Current Population Survey," IZA Discussion Paper 1747.

Gonzalez, Arturo, 2008, "The Education and Wages of Immigrant Children: the Impact of Age at Arrival," *Economics of Education Review*, Vol. 22, No. 2 (April), pages 203-212.

Grinberg, Leon and Rebeca Grinberg, 1989. *Psychoanalytic Perspectives on Migration and Exile*. Yale University Press.

Hanson, Gordon and Christopher Woodruff, 2003, "Emigration and Educational Attainment in Mexico," mimeo, University of California at San Diego.

Haveman and Wolfe, 1995, "The Determinants of Children's Educational Attainments: A Review of Methods and Findings," *Journal of Economic Literature*, Vol. 33 (4), pages 1892-1878.

Hirschman, C. and L. Falcon. 1985. "The Educational Attainment of Religio-Ethnic Groups in United States," *Research in Sociology of Education*, 5, pp. 83-120

Jasso G., D S. Massey, M. R. Rowenzweig and J.P. Smith, in press, "The U.S. New Immigrant Survey: Overview and Preliminary Results Based on the New-Immigrant Cohorts of 1996 and 2003," in B. Morgan and B. Nicholson (eds.), *Longitudinal Surveys and Cross-Cultural Design*, U.K. *Immigration Research and Statistics Service* (available at the New Immigrant Survey web site).

Jasso G., D S. Massey, M. R. Rowenzweig and J.P. Smith, 2008, "From Illegal to Legal: Estimating Previous Illegal Experience among New Legal Immigrants to the United States," IZA Discussion Paper No. 3441, April.

Lahaie, Claudia, Jeffrey Hays, Tinka Markham Piper and Jody Heymann, 2008, "Work and Family Divided Across Borders: The Impact of Parental Migration on Mexican Children in Transnational Families," paper presented at the 2008 Association for Public Policy Analysis and Management Meetings, November 6-8, Los Angeles.

Lofstrom, M., 2007, "Why are Hispanic and African-American Dropout Rates So High?" IZA Discussion Paper No. 3265, December.

McKenzie, David and Hillel Rapoport, 2006, "Can Migration Reduce Educational Attainment?" World Bank Policy Research Working Paper 3952, June, Washington.

Miranda, A., 2007, "Migrant Networks, Migrant Selection, and High School Graduation in Mexico," IZA Discussion Paper No. 3204, December.

Pan, Ying, 2007, "Gains from Green Cards: Immigrant Parents' Legal Status and Children's Scholastic Achievement," mimeo, Brown University, October.

Perreira, K. K Mullan Harris and D. Lee, 2006, "Making it in America: High School Completion by Immigrant and Native Youth," *Demography*, Vol. 43, pp. 511-536.

Pew Hispanic Trust, 2002, "Educational Attainment: Better Than Meets the Eye, But Large Challenges Remain," *Fact Sheet*, January.

Portes, Alejandro and Lingxin Hao, 2004, "The Schooling of Children of Immigrants: Contextual Effects on the Educational Attainment of the Second Generation," *Proceedings of the National Academy of Sciences*, 101(3), pages 11920-11927.

Portes, A. and R. G. Rumbaut, 2001, *Legacies: The Story of the Second Generation*, Berkeley, University of California Press.

Rumbaut, Rubén, 2005a, "Children of Immigrants and Their Achievement," Chapter 2 in Ronald Taylor and Herbert J. Walberg, editors, *Addressing the Achievement Gap: Findings and Applications*, Information Age Publishing, Charlotte, NC, pages 23-59.

Rumbaut, Rubén, 2005b, "Turning Points in the Transition to Adulthood: Determinants of Educational Attainment, Incarceration, and Early Childbearing Among Children of *Immigrants*, *Ethnic and Racial Studies*, Vol. 28, No. 6 (November), pages 1041-1086.

Sawyer, A. D. Keyes, C. Valasquez and M. Bautista, forthcoming, "Going to School, Going to *El Norte*: The Impact of Migration on Education," in W. Cornelius, D. Fitzgerald, J Hernandez-Diaz and S. Borger (eds.), *Between Two Worlds: Oaxacan Migrants and the Mexican Mixteca*

and California, Lynne Rienner Publishers for the Center for Comparative Immigration Studies of the University of California San Diego.

Schen, Cathy, 2005, "When Mothers Leave Their Children Behind," *Harvard Review of Psychiatry*, Vol. 13, No. 4 (July/August), pages 233-243.

Scovel, T., 2000, "A Critical Review of the Critical Period Research," *Annual Review of Applied Linguistics*, Vol. 20, pages 213-223.

Sluzki, CE, 1979, "Migration and Family Conflict" *Family Process*, 18(4):379-390.

Smith, Andrea, Richard Lalonde and Simone Johnson, 2004, "Serial Migration and Its Implications for the Parent-Child Relationship: A Retrospective Analysis of the Experiences of the Children of Caribbean Immigrants," *Cultural Diversity and Mental Health*, Vol. 10 (2), May, pages 107-122.

Suarez-Orozco, M. and C. Suarez-Orozco, 2007, "Immigration: Youth Adapt to Change," *Harvard Law and Policy Review Online*, April, www.harvardlawreview.org.

Suarez-Orozco, Carola and M. Suarez-Orozco, 2001, *Children of Immigration*, Cambridge, MA, Harvard University Press.

Suarez-Orozco, C. M. Suarez-Orozco and I. Todorova, 2008, *Learning in a New Land: Immigrant Students in American Society*, The Belknap Press of Harvard University Press, Cambridge.

Suarez-Orozco, Carola, I. Todorova and J. Louie, 2002, "Making up for Lost Time: The Experience of Separation and Reunification among Immigrant Families," *Family Process*, 41, 625-643, Winter.

Suarez-Orozco, C. M. and D.B. Qin, 2006, "Gendered Perspectives in Psychology: Immigrant Origin Youth," *International Migration Review*, Vol 40, No. 1, pp. 165-198.

The Urban Institute, 2006, "Children of Immigrants: Facts and Figures," Fact Sheet, Washington, May.

Vernez, G., A. Abrahamse and D. Quigley, 1996, *How Immigrants Fare in U.S. Education*, Rand Institute on Education and Training, Rand Monograph Report 718, www.rand.org/pubs/monograph_reports/MR718.

Winnicott, D. W., 1958, *Collected Papers: Through Pediatrics to Psychoanalysis*, Tavistock, London.

Appendix A

Table A1: Education Gap Regression Including Years Separated

Dependent Variable: Education Gap=1

Explanatory Variable		
Immigration Variables (reference group is U.S. born)		
Immigrated with parents	-0.001	(.02)
Separated during migration	0.067	(.04) *
Years Separated	-0.005	(.004)
Region of Origin		
Latin American	-0.015	(.02)
Asian	-0.007	(.015)
Parent's education dummies (excluded category is none)		
Elementary	0.012	(.057)
Middle/Junior High	-0.001	(.063)
High School	-0.022	(.018)
Associates	-0.017	(.04)
Bachelors	-0.064	(.017) ***
Masters	-0.027	(.025)
Doctorate	0.005	(.033)
JD/MD	0.013	(.085)
Parent's occupation dummies		
Manager	-0.009	(.02)
Professional and technical	0.005	(.154)
Years of residence	-0.003	(.003)
Traditional family	-0.027	(.018)
Gender	0.020	(.012) *
Age	0.011	(.003) ***
Parent Undocumented	0.051	(.019) ***
Parent's English Skill (1=best)	0.003	(.004)
Teen migrant	0.054	(.04)
Intercept	-0.039	(.034)
R-square	0.0706	
Number of observations	1545	

Notes: Estimated with Ordinary Least Squares (Linear Probability Model), standard errors are robust to heteroskedasticity.
 Traditional Family = 1 if child lives with both biological parents, 0 otherwise
 Gender = 1 if child is male, 0 if female
 Teen migrant = 1 if child migrated at age 12 or later, 0 if migrated at a younger age.
 Parent Undocumented = 1 if parent was undocumented before receiving a green card.
 Parent's English Skill = 1 if very good, 2 if good, 3 if fair, 4 if poor.
 * = Significant at 10%
 ** = Significant at 5%
 *** = Significant at 1%

Table A2: Grade Repetition and High School Drop-Out Regressions

Explanatory Variable	Dependent Variable	
	High School Drop-Out=1	Grade Repeated=1
Immigration Variables (reference group is U.S. born)		
Immigrated with parents	-0.165 (.119)	-0.068 (.033) *
Separated during migration	0.001 (.136)	-0.032 (.025)
Region of Origin		
Latin American	-0.102 (.088)	
Asian	0.051 (.072)	
Parent's education dummies (excluded category is none)		
Elementary	0.103 (.245)	0.112 (.103)
Middle/Junior High	0.200 (.424)	-0.042 (.016) ***
High School	-0.110 (.076)	-0.014 (.017)
Associates	-0.112 (.132)	-0.052 (.016) ***
Bachelors	-0.173 (.081) **	-0.012 (.035)
Masters	-0.173 (.095) *	-0.056 (.045)
Doctorate	0.062 (.16)	0.037 (.028)
JD/MD	0.006 (.179)	-0.044 (.025) *
Parent's occupation dummies		(jointly significant)
Manager	-0.013 (.086)	0.034 (.097)
Professional and technical	-0.026 (.066)	-0.029 (.018)
Years of residence	-0.008 (.011)	-0.007 (.005)
Traditional family	-0.102 (.067)	-0.042 (.021) **
Gender	0.048 (.05)	-0.001 (.018)
Age	-0.043 (.021) **	0.012 (.006) **
Parent Undocumented	0.078 (.096)	0.034 (.016) **
Parent's English Skill (1=best)	0.040 (.021) *	-0.009 (.009)
Teen migrant	0.033 (.105)	0.034 (.09)
Intercept	1.220 (.394) ***	0.012 (.049)
R-square	0.1572	0.0568
Number of observations	252	486

Notes: Estimated with Ordinary Least Squares (Linear Probability Model), standard errors are robust to heteroskedasticity.
 Traditional Family = 1 if child lives with both biological parents, 0 otherwise
 Gender = 1 if child is male, 0 if female
 Teen migrant = 1 if child migrated at age 12 or later, 0 if migrated at a younger age.
 Parent Undocumented = 1 if parent was undocumented before receiving a green card.
 Parent's English Skill = 1 if very good, 2 if good, 3 if fair, 4 if poor.
 * = Significant at 10%
 ** = Significant at 5%
 *** = Significant at 1%

Appendix B

E-mail Letter to Teachers

On subject line of email: Quick survey from UMBC regarding immigrant students.

Dear Teacher,

We are professors Sara Poggio and Tim Gindling of UMBC and are conducting research about the factors that affect the performance in Maryland schools of children who have migrated from Latin America. We obtained your email address from school web sites. We would like to know what you, as teachers who work directly with immigrants, believe are the important factors that affect the success or failure in school of immigrant children from Latin America. Your knowledge and opinions are extremely important to us and will guide us as we decide which factors should be the focus of our research. For these reasons, we would appreciate if you would take a few minutes to answer the questions in a short, anonymous, on-line questionnaire. To access this questionnaire, please click on the following link:

<http://www.umbc.edu/ml/teachers/>

After you have answered the questions to your satisfaction, please click the “submit” button at the bottom of the web page. Be assured that your responses to this questionnaire are completely anonymous: the on-line questionnaire has been designed so that we will not know your name, school or email address. If anyone else at your school would be interested in this survey, please give them the above web address.

For any additional questions, you may contact us at the email addresses below. Thank you for your help.

Sincerely yours,

Tim Gindling (gindling@umbc.edu), Professor of Economics, University of Maryland Baltimore County (UMBC), and
Sara Poggio (poggio@umbc.edu), Associate Professor of Modern Languages and Linguistics, UMBC.

Appendix C



Teacher Questionnaire

Principal Researchers: Sara Poggio, Associate Professor, Department of Modern Languages and Linguistics, UMBC and Tim Gindling, Professor, Department of Economics, UMBC.

Please tell us about yourself:

Grade(s) that you teach:

In what school district?

Are you an ESOL teacher? *If not, what position*

How many years have you been teaching?

1. Approximately what proportion of your students are immigrants from Latin America?

2. From which Latin American countries do your students come?

3. In your opinion, when Latin American immigrant children enter American schools, do they experience more problems than other students because of the following (if so, please provide a short description of the problem):

- a. Lack of knowledge of English
- b. Lack of academic preparation
- c. Behavior or discipline problems
- d. Health problems

e. Mental Health / Emotional Issues

f. Other issues (for example, immigration problems, family problems,etc.)

4a. Are Latin American immigrant children older than others in their grades?

4b. If so, why?

Possible answers:

They were assigned to a lower grade than others in their age group when they arrived in the United States.

They repeated a grade while going to school in the United States.

They missed a year of school because of the move from their home country.

They repeated a grade while going to school in their home country before immigrating

Other (explain)

5. We are particularly interested to know if the separation of families during the migration process has an impact on later school performance. That is, the parents of many Latin American immigrant children migrate to the U.S. first, leaving their children in the care of other family members or friends. Later, the children also migrate and are reunited with their parent / parents

a. From what you know, approximately what percent of your latin American immigrant students have spent time separated from their parents for one year or more because of migration?

b. Do you notice any special difficulties such children have in school? If so, can you briefly describe these special difficulties?

c. Do you notice any special problems in the relationships between such children and their parents that affect school performance?

6. Do you think that there is a difference between Latin American immigrant girls and boys in the way they adjust to school?

7. Who has an easier time in school, children who immigrated as pre-teens (11 years old and younger) or children who immigrated as teenagers (age 12 and above) Why do you think this is?

8. Please, feel free to share with us any thought about factors that in your opinion could affect the school performance of Latin American immigrant students. Why do you think this is.

9. From your experience, what existing resources or programs help most in improving the performance of Latin American immigrant students?

10. From your experience, what resources or programs (that are not currently available) would help most in improving the performance of Latin American immigrant students?

Thank You



Maryland Institute *for*
Policy Analysis & Research

University of Maryland, Baltimore County

1000 Hilltop Circle

Baltimore, MD 21250

www.umbc.edu/mipar