

Civil War, Forced Migration and Educational Attainment in Destination Areas: Evidence From Colombia

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Abstract

The ongoing civil conflict in Colombia has caused an unexpected and large outflow of people moving from rural areas to urban centers during a short period of time. More than 3.5 million Colombians were forced to migrate between 1998 and 2008. These large inflows of migrants not only affected destination labor market conditions, but also may have had an effect on the schooling decisions of non-migrant children in destination areas. These disproportionately large shares of younger children and young adults among displaced populations may crowd local children out of schools. However, there is a countervailing force that could increase the level of education of non-migrant students. If these migrations depress the wages and employment opportunities of low-skilled workers at destinations, then local students may decide to stay in school due to their relatively weak prospects in the labor market. Given the relatively modest effects of these migrations on wages of local workers, the results appear to suggest stronger evidence for crowding out at local schools. My results, estimated using an instrumental variable approach indicate a decline on school enrollment of children residing in receiving communities, with larger crowding effects for older children living in the 13 largest metropolitan areas.

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1 Introduction

The civil war in rural Colombia has generated massive migrations of people fleeing to cities in search of relative safety. Between 1998 and 2008 more than 3.5 million people were forced to migrate from rural to urban areas. In the last decade, the share of forced migrants relocating permanently to cities has substantially increased, representing 2-13 percent of the urban labor force in the 13 largest metropolitan areas (Calderón and Ibáñez, 2010).

Rural warfare has affected the composition of families. Husbands and older children tend to be targets of the illegal armed groups, and are more likely to be killed or conscripted into illegal armies than women or young children. Accordingly the conflict translates into a larger number of families headed by females migrating out of rural areas to cities. The purpose of this paper is to study the impact of the influx of displaced populations on school enrollment decisions of children in destination areas.

Contrary to previous literature on the effects of migration and civil war on educational attainment, this paper concentrates on the effects of displacement on schooling decisions of non-migrant children, rather than the migrants themselves. The disproportionately large shares of younger children and young adults among the displaced populations may have a crowding effect on schools at destinations. However, there is a countervailing force that could increase the level of education for non-migrant students. If these migrations depress the wages and employment opportunities of low-skilled workers at destinations, then non-migrant students may decide to stay in school due to their relatively weak prospects in the labor market. The purpose of this paper is to estimate to estimate which of these two effects dominates.

I use an instrumental variables approach, as it seems particularly likely that if forced migrants settle in economically vibrant areas, where there is relatively more access to education, thus possibly biasing OLS estimates. The instrument is a function of massacres

occurring in rural areas, as these events appear to explain not only why individuals flee in search of safety but also why they relocate in nearby urban areas.

For this purpose I use two sources of data. The first is the evaluation data from Familias en Acción, a random sample of approximately 14,000 children eligible for a conditional cash transfer program (CCT). I use this dataset to estimate the dynamic effects of larger school-age cohorts in a given urban area on school enrollment. Using an instrumental variable approach, I estimate a decline on enrollment of 0.47 percent for a 10 percent increase in the share of migrants for non-migrant children in these 122 municipalities, and a 1.5 percent decline in enrollment of IDPs residing in these municipalities for a 10 percent increase in the share of IPDs. The crowding effects appear to be larger for younger children ages 7-12.

The second is a household survey collected between 2001-2006, a cross-sectional dataset that allows the estimation of the effects of these migrations on educational attainment and enrollment of children in the 13 largest metropolitan areas. My results suggest that a 10 percent increase in the share of forced migrants in a given urban area reduces school enrollment rates by about 0.56 percent for non-migrant children and 0.82 percent for internally displaced children. While the results are similar to those obtained using the FA evaluation survey, the crowding effects is stronger for older children ages 13-17 that are both forced migrants and non-migrants.

The remainder of the paper is organized as follows. Section 2 presents the existent literature on armed conflict and education investments. The the data used and the empirical methodology in the paper are presented in sections 3 and 4, respectively. Results are presented in section 5 and section 6 concludes.

2 Background

2.1 Literature Review

The economic literature of migration has concentrated in studying whether the inflow of migrants depresses the wages of and employment opportunities of native workers. Even though there is no consensus on the magnitude of the effects of migration on labor markets, a number of studies have found evidence that these migrations affect wages and employment opportunities for less skilled native workers (Borjas (1998), Butcher (1998) and Reimers (1998)).

In the conflict literature, Calderón and Ibáñez (2010) and Bozzoli, Brück and Wald (2010) provide further evidence of deteriorating labor market conditions in areas that are net receivers of displaced populations. In particular, these studies find that displacement reduces wages in the informal sector and increases the probability of self-employment in urban areas.

However, the issue of whether migration affects the educational attainment of non-migrant local students has been given relatively less attention but by the economic literature of migration and by the conflict literature. The arrival of a large number of migrants to a given city can induce non-migrant students to stay in school for either longer or shorter periods of time, depending on whether the marginal benefits or the marginal costs of education rise in response (Betts (1998)).

A number of papers have found evidence that migration crowds out native students from schools, reducing high school and college graduation rates in the United States as a response to immigrant inflows (Betts (1998) and (2000), Betts and Lofstorm (2000) and Hoxby (2000), and Betts and Fairlie (2003)). While other studies find evidence of positive, crowd-in effects on college enrollment rates in the United States as a response to an increase in the share of relatively unskilled immigrant labor (Jackson (2009)). There are two countervailing forces

here, but given the evidence of relatively small effects on of migration on the wages of local workers, the crowding out effect appears to dominate in these studies, suggesting that natives obtain less education in response to migration inflows.

The conflict literature has concentrated on examining schooling choices in areas more severely affected by conflict relative to relative to areas with less prevalence of violence (Barraera and Ibáñez (2004), Shemyakina (2006), Miguel and Roland (2006), Chen et al. (2007), Dueñas and Sánchez (2007), Akresh and de Walque (2008) and Akbulut-Yuksel (2008)). In a more recent study in Colombia, Rodríguez and Sánchez (2009) compare schooling effects in areas more severely affected by conflict. Using a panel data set from the Colombian Quality of Life Survey, they estimate the effects of conflict on schooling decisions. Their results suggest that the prevalence of violence significantly increases the drop-out rate for all school aged children, with stronger effects for children ages 12 to 17.

A large influx of migrants with lower educational attainment coupled with a highly inelastic education supply response suggests that forced migration can have detrimental effects on schooling decisions of children in destination areas in Colombia. Using data on forced displacement I can test if average educational attainment of local children in cities rises or falls in response to forced migration. A more detailed explanation of the methodology and data is provided in the following section.

2.2 The effects of Forced Migration on the Marginal Costs and Benefits of Education for Non-Migrant Children at Destinations

Internally displaced populations (IDPs) often experience educational disruption at their place of origin, and upon arrival may lag behind other school aged children. In an effort to compensate these populations, the Colombian government has given these children priority access to public schools and the conditional cash transfer program "Familias en Acción" in

destination areas.¹ This preferential treatment of displaced children makes crowding out of non-migrant children at destination schools possible, as it increases the marginal cost of education for non-migrant children.

However, the influx of less skilled migrants can also increase the returns to education. Calderón and Ibáñez (2010) estimate that the arrival of displaced populations to cities is associated with a 2.1 percent decline in wages of low skilled workers. This suggests that the effects of these migrations on educational attainment of urban children can be ambiguous. In addition, these negative effects on wages affect mainly low-skilled informal workers, that comprise 60 percent of the urban workforce. My purpose is to estimate which effect dominates and to what extent these migrations have a detrimental effect on the educational attainment of non-migrant children at destination areas.

The following section provides a more detailed explanation of the data used in the paper, followed by the empirical specification and the results.

3 Data

3.1 Familias en Acción Evaluation Survey

Two different sources of data are used in this paper. The first comes from the Familias en Acción (FA) evaluation survey. The FA program is a conditional cash transfer program which aims to promote the educational attainment of poor children in both urban and rural areas. It entails a subsidy paid to the mother of the child(ren), conditional on the child(ren) attending at least 80 percent of school classes. The amount of the subsidy varies by school level, being 14,000 pesos (US\$ 6.15) and 28,000 pesos (US\$12.30) for children attending primary and secondary school respectively (Attanasio et al, (2006)).¹

¹Ley 387 de 1997 and Decreto 2562 de 2001.

¹The other component of the program is the nutrition subsidy. A flat-rate monthly monetary supplement of 46,500 pesos (approximately US\$ 20.45) is provided to mothers of all beneficiary families with children

The FA evaluation survey was designed especially for the purposes of evaluating the impact of the program. The survey collects information on individuals and households located in treatment and control municipalities between 2002 and 2005. The survey is an unbalanced panel dataset of a random sample of the population eligible for program.

The first, third and sixth module of the survey contain information on the socio-economic structure of the household, housing conditions, household assets, education, household consumption, labor supply, income, participation in the CCT program, and displacement status.

In order to evaluate the effect of migration on school enrollment I use information on individuals ages 7 to 17, who under the K-11 structure of the Colombian education system should be enrolled in school. Education is compulsory from until the 9th grade.²

In total, the FA evaluation survey has information on about 14,000 children that residing in 122 municipalities. For the purpose of the analysis I only estimate the effects of the presence of IDPs in local schools in the largest towns within these 122 municipalities included in the survey.³ Table 2, describes the household characteristics of both internally displaced persons (IDPs) and non-migrant children in the same socioeconomic strata living in destination areas. Households included in Familias en Acción evaluation survey, belong to SISBEN classification 1 and 2. The SISBEN index is a function of a set of variables related to the consumption of durable goods, human capital endowment and current income. People in SISBEN classification 1 and 2 correspond to the lowest scores of the index, and are the target population for most government programs.

Displaced households tend to have a larger number of children, and are more likely to have a female head. On average, IDPs have fewer years of schooling than other non-migrant students, and are more likely to drop-out of school. The intensification of the conflict in rural areas has drastically increased rural drop-out rates and reduced the average years of

aged 0 through 6.

²from ages 7 to 15.

³Cabeceras Municipales.

schooling of children that come from these municipalities (Rodríguez and Sánchez (2009)). IDPs are equally likely to be to be part of FA program at all ages, but have on average significantly lower enrollment rates than non-migrants of the same socio-economic strata. It is important to note that the 13 largest metropolitan areas are not considered in the FA Evaluation Survey and are likely the destination of displaced families. In order to conduct a more thorough analysis I use household survey data to test for these effects of these migrations on educational attainment in the largest cities in the country.

3.2 Data from ECH

The second source of data is the National Household Survey 2001-2006 (ECH 2001-2006 using its Spanish acronym), a repeated cross-section collected quarterly by the National Statistics Department (DANE) in the 13 largest metropolitan areas of Colombia. The surveys included in the paper cover the period from January 2001 to March 2006. During this time frame, conflict intensified and displacement soared. The questionnaire for the first quarter of each year includes migration questions that identify displaced persons as those that migrated due to violence and conflict.

The National Household Survey also collects information on household characteristics, education variables, and labor force information. For the estimation purposes I use information on displaced and non-displaced children with official socio-economic strata classification 1, 2 and 3, the three lowest income groups. In order to have comparability with the other survey used, the analysis is based on children 7 to 17 years of age.

Data on displacement from Acción Social, is used to estimate the migration shares in destination areas. Table 1 presents average displacement shares by the size of the municipality and Table 2 the IDP Shares of school age for the 13 largest metropolitan areas. The estimates presented in these tables show that a larger share of school aged IDPs will relocate to larger cities. In addition, state-level data on massacres from CEDE and the Colombian

Police is used to construct the instrument. Table 3 shows that on average about 4 massacres occur per state in the time frame of the study.

4 Empirical Specification

In order to identify the impact of the inflow of forced migrants on school enrollment of children, I use the following reduced form specification:

$$SE_{ict} = \beta_t + \beta_{ct} + X_{ict}\delta + \gamma \ln S_{ct} + \epsilon_{ict} \quad (4.1)$$

where SE_{ict} is a dummy variable that indicates whether children were enrolled in school and attended more than 85 percent of the classes each year, X_{ict} is a vector of individual characteristics, and S_{ct} is the share of forced migrants of school age on city c at time t constructed as follows:

$$S_{ct} = \frac{\sum_{j=1998}^t M_{cj}}{SchoolCohort_{7-17ct}} \quad (4.2)$$

The numerator M_{cj} is the number of IDPs in school age 7-17 entering city c in time t , and the denominator is the size of the cohort 7-17 years of age in city c at time t . γ represents the impact of migration on school enrollment, and β_c and β_{ct} are time invariant and time varying locale effects, respectively. It seems quite likely that omitted variable bias could be affecting the coefficients. If IDPs settle in economically vibrant areas, then underprivileged children obtain relatively more education in such areas, and the coefficients on the migrant ratio will be biased upward. To provide a further safeguard against misspecification, I estimate equation 4.1 using instrumental variables, where the instrument for S_{ct} is the cumulative

number of massacres occurring in the same state. Algebraically, it is given by:

$$I_{ct} = f \left(\sum_{State_s} NumberofMassacres \right) \quad (4.3)$$

The two-stage least squares estimation exploits the fact that these migrant will flee in response to massacres occurring at the municipalities of origin, and will likely migrate to cities in the vicinity. The results of employing that estimation strategy, are presented on the following section.

5 Results

5.1 OLS and 2SLS Estimates from FA

Results for both OLS and IV estimates using the FA are presented in this section. The regressions test the hypothesis that the presence of IDPs in local schools discourages non-migrant children from staying in school. In this case I used the proportion of IDPs in the overall population rather than proportion of IDPs by age group in the local area. The reason is that estimates obtained using age groups had substantial measurement errors problems.

Table 3 presents the main OLS and 2SLS estimates. The OLS results, show evidence of crowding once year fixed effects and state-fixed effects are included for both migrant and non-migrant children. The IV estimates are systematically more negative which is what one would expect if migrants locate in areas with more access to schools. My results suggest that the arrival of larger cohorts of displaced children are particularly perverse for other displaced children that arrived earlier to these municipalities, with a significant but rather small crowding effect on non-migrant children. A 10 percent increase in the share of migrants in a given area reduces school enrollment by 1.5 percent for displaced children and by 0.42

percent for non-migrant children.

Non-migrants appear to be less sensitive to the arrival of displaced children than displaced children themselves. One potential explanation for this is that non-migrant families might have more financial resources than displaced families, allowing children of non-migrant families to switch to other schools affected to a lesser extent by the arrival of IDPs.

Table 4 and 5 show the OLS and 2SLS regressions for younger and older children respectively. Interestingly, an increase in the share of IDPs in a municipality will reduce enrollment of both young and old, non-migrants and displaced children. However, the crowding effect will be larger for the younger non-migrant children relative to older non-migrant children, while it will be smaller for younger IDPs relative to older IDPs. These results suggest that older displaced children will be less likely to enroll in schools and will be more severely affected by the arrival of other displaced children at these destinations.

Information on classroom size is available for children that are enrolled in school. Table 6 shows the effects of the log IDP share on classroom size, the IV regressions are both positive and statistically significant, showing a positive relationship between the arrival of IDPs and the classroom size.

5.2 OLS and 2SLS Estimates from ECH for the 13 Largest Metropolitan Areas

Tables 8-13 show the results for the 13 largest metropolitan areas. Information on school aged children and IDPs in school age is more reliable for large metropolitan areas, and thus the shares used are calculated using only school aged children. Table 1, shows the total share of displaced population by metropolitan area. Villavicencio and Monteria have the largest displaced population as a share of the school aged children. The effects on migrant and non-migrant children appear to be consistent to those estimated using the FA evaluation

survey. Table 7 shows that a 10 percent increase in the share of displaced children will reduce non-migrant enrollment by about 0.56 percent and IDP school enrollment by about 0.82 percent.

Table 9 and 10 show the results for younger and older children respectively. The magnitude of the effects is similar to that found in the FA evaluation survey, and is consistently larger for displaced children. However, the main difference is that in the 13 largest cities, the crowding effect will be larger for older children, with a 1.1 decline in enrollment rates for a 10 percent increase in the share of forced migrants. Older children will be negatively affected by the arrival of forced migrants into cities, despite the fact that these same migrations are lowering the wages of low skilled workers. If wages were unaffected by the arrival of IDPs then the crowding effect could be even larger. The conclusions are presented in the next section.

6 Conclusions

The results of this paper suggest that the rapid arrival of school aged children into cities and large towns has contributed towards the decline in educational attainment of both IDPs and non-migrant students at these destinations. The effects are concentrated among low income students of similar characteristics to displaced children. Like most of the literature on the topic (Betts (1998), Hoxby (1998), and Betts and Lofstrom (1998)) this study uses indirect means to infer whether displaced children directly or indirectly reduce non-migrant school attendance. This entails a careful interpretation of the results, and as suggested by Betts (2000) more direct studies at the school level are required to confirm that in-migration flows of school age children have a negative effect on non-migrant children schooling decisions.

On the one hand, larger cities are the most likely destination of displaced families and greater attention should be given on how to expand the supply of schools to accommodate

for both displaced and non-migrant children. On the the other hand, while government programs appear to be targeting at risk populations, the efforts fall short in the light of the dynamics of civil war and the rapid increase of displaced populations arriving in more densely populated areas.

7 References

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Table 1: Refugee Shares in the 13 Largest Metropolitan Areas

City	2002	2003	2004	2005	2006	2007	2008
Barranquilla	1.57	1.79	2.03	2.26	2.43	2.50	2.58
Bogotá	0.94	1.22	1.50	1.83	2.27	2.79	3.28
Bucaramanga	1.65	1.94	2.22	2.43	2.74	3.06	3.27
Cali	1.01	1.23	1.40	1.62	1.82	2.16	2.52
Cartagena	3.67	4.15	4.56	4.99	5.42	5.72	5.99
Cúcuta	2.89	3.24	3.51	3.82	4.20	4.53	4.83
Ibagué	3.38	4.27	5.07	5.83	6.83	8.29	9.73
Manizales	1.12	1.35	1.54	1.70	1.85	2.00	2.20
Medellín	2.10	2.37	2.64	3.07	3.39	3.75	4.18
Montería	4.66	5.17	5.59	6.17	6.70	7.35	8.27
Pasto	3.94	4.56	4.95	5.30	6.07	6.97	7.84
Pereira	1.53	2.07	2.49	2.73	3.06	3.53	3.89
Villavicencio	6.80	8.07	9.49	12.00	13.62	15.26	16.91

Source: Author's calculations based on Acción Social and DANE.

Table 2: Descriptive Statistics of School Aged Children in Colombia

	Mean	SD	Mean	SD
Household Characteristics	IDPs 7-12		Non-Migrants 7-12	
Male	0.51	0.50	0.50	0.50
Age	9.51	1.70	9.53	1.70
No. Siblings	3.26	2.29	2.82	1.56
Siblings under 5	1.44	1.66	1.14	1.48
Household Size	7.91	3.53	7.34	3.09
Female Head	0.30	0.46	0.24	0.43
	IDPs 13-17		Non-Migrants 13-17	
Male	0.49	0.50	0.52	0.50
Age	14.95	1.41	14.88	1.40
No. Siblings	3.45	2.24	2.89	1.59
Siblings under 5	1.32	1.87	1.02	1.40
Household Size	8.49	3.67	7.56	3.19
Female Head	0.29	0.45	0.27	0.44
	Mean	SD	Mean	SD
Education Outcomes	IDPs 7-12		Non-Migrants 7-12	
Enrollment Rate 7-12	0.93	0.25	0.95	0.22
Drop-out Rate	0.09	0.29	0.05	0.23
Grade	3.32	1.75	3.54	2.94
Literacy	0.86	0.34	0.89	0.32
FA Beneficiary	0.39	0.49	0.40	0.49
Classroom Size	29.17	11.46	29.59	11.10
	IDPs 13-17		Non-Migrants 13-17	
Enrollment Rate 7-12	0.72	0.45	0.77	0.42
Drop-out Rate	0.13	0.34	0.12	0.32
Grade	7.33	2.26	7.35	2.22
Literacy	0.95	0.23	0.96	0.19
FA Beneficiary	0.37	0.48	0.38	0.49
Classroom Size	31.95	11.28	32.63	11.25

Source: FA Evaluation Survey

Table 3: FA Regressions for School Enrollment Ages 7-17

	Non-Migrants 7-17		IDPs 7-17	
	OLS	IV	OLS	IV
FA Beneficiary	0.243*** (0.007)	0.250*** (0.007)	0.273*** (0.028)	0.264*** (0.029)
Female	0.031*** (0.006)	0.030*** (0.006)	0.032 (0.025)	0.030 (0.027)
Age	-0.028*** (0.001)	-0.028*** (0.001)	-0.037*** (0.004)	-0.038*** (0.004)
Log IDP Share	-0.007*** (0.003)	-0.043*** (0.008)	-0.041*** (0.012)	-0.152*** (0.043)
No. Siblings	0.026*** (0.002)	0.026*** (0.002)	0.041*** (0.007)	0.048*** (0.008)
No. Household Members	-0.034*** (0.001)	-0.034*** (0.001)	-0.026*** (0.006)	-0.025*** (0.006)
No. Siblings Under 5	0.017*** (0.003)	0.018*** (0.003)	-0.002 (0.012)	-0.020 (0.014)
Constant	0.996*** (0.022)	0.835*** (0.042)	0.902*** (0.094)	0.363 (0.223)
N	13814	13814	879	879
F-Stat	145.137	143.819	13.448	12.362
R ²	0.208	0.197	0.274	0.204

Source: FA Evaluation Survey 2002-2005. Note: Enrollment is a binary variable that indicates if the child is enrolled in formal education in the year of the survey. Robust standard errors are reported in parenthesis. All regressions include state and year fixed effects. Each individual coefficient is statistically significant at the *10%, **5%, or ***1% level.

Table 4: FA Regressions for School Enrollment of Younger Children Ages 7-12

	Non-Migrants 7-12		IDPs 7-12	
	OLS	IV	OLS	IV
FA Beneficiary	0.147*** (0.008)	0.155*** (0.008)	0.127*** (0.032)	0.120*** (0.033)
Female	0.016** (0.007)	0.017** (0.007)	0.009 (0.029)	0.010 (0.030)
Age	0.008*** (0.002)	0.009*** (0.002)	-0.002 (0.009)	-0.003 (0.009)
Log IDP Share	-0.006** (0.003)	-0.049*** (0.010)	-0.050*** (0.014)	-0.121** (0.049)
No. Siblings	0.031*** (0.002)	0.031*** (0.002)	0.043*** (0.008)	0.049*** (0.009)
No. Household Members	-0.043*** (0.001)	-0.044*** (0.001)	-0.030*** (0.006)	-0.030*** (0.007)
No. Siblings Under 5	0.026*** (0.003)	0.028*** (0.003)	-0.004 (0.014)	-0.014 (0.016)
Constant	0.777*** (0.029)	0.582*** (0.053)	0.648*** (0.123)	0.302 (0.259)
N	8269	8269	534	534
F-stat	68.451	67.489	4.779	4.300
R ²	0.172	0.150	0.184	0.142

Source: FA Evaluation Survey 2002-2005. Note: Enrollment is a binary variable that indicates if the child is enrolled in formal education in the year of the survey. Robust standard errors are reported in parenthesis. All regressions include state and year fixed effects. Each individual coefficient is statistically significant at the *10%, **5%, or ***1% level.

Table 5: FA Regressions for School Enrollment of Older Children Ages 13-17

	Non-Migrants 13-17		IDPs 13-17	
	OLS	IV	OLS	IV
FA Beneficiary	0.343*** (0.012)	0.346*** (0.012)	0.476*** (0.048)	0.466*** (0.054)
Female	0.053*** (0.011)	0.052*** (0.011)	0.062 (0.045)	0.048 (0.050)
Age	-0.083*** (0.004)	-0.083*** (0.004)	-0.079*** (0.015)	-0.073*** (0.017)
Log IDP Share	-0.008** (0.004)	-0.022* (0.013)	-0.022 (0.021)	-0.199*** (0.077)
No. Siblings	0.014*** (0.003)	0.013*** (0.003)	0.036*** (0.012)	0.046*** (0.014)
No. Household Members	-0.019*** (0.002)	-0.019*** (0.002)	-0.024** (0.011)	-0.023* (0.012)
No. Siblings Under 5	0.004 (0.005)	0.004 (0.005)	0.009 (0.023)	-0.027 (0.029)
Constant	1.656*** (0.066)	1.591*** (0.089)	1.485*** (0.277)	0.543 (0.495)
N	5545	5545	345	345
F-Stat	80.694	80.494	9.300	7.878
R ²	0.268	0.266	0.411	0.283

Source: FA Evaluation Survey 2002-2005. Note: Enrollment is a binary variable that indicates if the child is enrolled in formal education in the year of the survey. Robust standard errors are reported in parenthesis. All regressions include state and year fixed effects. Each individual coefficient is statistically significant at the *10%, **5%, or ***1% level.

Table 6: FA Evaluation Survey Regressions for Classroom Size and Log IDP Shares

	Non-Migrants 13-17		IDPs 13-17	
	OLS	IV	OLS	IV
All Children				
Log IDP Share	-0.055 (0.085)	0.108*** (0.010)	-0.512 (0.441)	0.463*** (0.081)
N	9320.000	13814.000	582.000	879.000
F-Stat	58.469	78.710	5.338	4.495
R ²	0.136	0.077	0.187	.
Older Children				
Log IDP Share	-0.039 (0.105)	0.128*** (0.014)	-0.431 (0.507)	0.404*** (0.099)
N	6135.000	8269.000	390.000	534.000
F-Stat	38.814	54.164	5.447	2.974
R ²	0.137	0.073	0.264	.
Younger Children				
Log IDP Share	-0.091 (0.143)	0.083*** (0.015)	-0.224 (0.867)	0.558*** (0.145)
N	3185.000	5545.000	192.000	345.000
F-Stat	15.942	32.228	1.464	1.994
R ²	0.112	0.102	0.174	.

Source: FA Evaluation Survey 2002-2005. Note: The dependent variable is the class size for each child. Robust standard errors are reported in parenthesis. All regressions include state and year fixed effects. Each individual coefficient is statistically significant at the *10%, **5%, or ***1% level.

Table 7: ECH Regressions for School Enrollment of Children Ages 7-17

	Non-Migrants 7-12		IDPs 7-12	
	OLS	IV	OLS	IV
Age	-0.036*** (0.000)	-0.036*** (0.000)	-0.040*** (0.003)	-0.040*** (0.004)
SES==2	0.028*** (0.003)	0.031*** (0.004)	0.003 (0.036)	0.001 (0.036)
SES==3	0.067*** (0.003)	0.070*** (0.004)	0.058 (0.038)	0.053 (0.041)
Female	0.011*** (0.002)	0.011*** (0.002)	0.025 (0.022)	0.026 (0.022)
Female Head	-0.026*** (0.002)	-0.025*** (0.002)	-0.080*** (0.025)	-0.081*** (0.026)
Years of Education Head	0.001*** (0.000)	0.001*** (0.000)	0.011*** (0.003)	0.011*** (0.003)
Siblings	-0.002*** (0.001)	-0.002*** (0.001)	-0.025*** (0.009)	-0.025*** (0.009)
No. Household Members	-0.009*** (0.001)	-0.009*** (0.001)	-0.011* (0.006)	-0.011* (0.006)
Log IDP Share	-0.016*** (0.003)	-0.063*** (0.018)	-0.093*** (0.034)	-0.013 (0.203)
Constant	1.263*** (0.013)	1.071*** (0.075)	0.897*** (0.161)	1.214 (0.815)
N	87347.000	87347.000	1228.000	1228.000
F-Stat	577.938	575.316	10.684	10.340
R ²	0.142	0.139	0.182	0.178

Source: ECH 2001-2006. Note: Enrollment is a binary variable that indicates if the child is enrolled in formal education in the year of the survey. SES is a dummy variable indicating the socio-economic strata. Robust standard errors are reported in parenthesis. All regressions include state and year fixed effects. Each individual coefficient is statistically significant at the *10%, **5%, or ***1% level.

Table 8: ECH Regression for School Enrollment of Younger Children Ages 7-12

	Non-Migrants 7-12		IDPs 7-12	
	OLS	IV	OLS	IV
Age	-0.002*** (0.004)	-0.002*** (0.004)	0.005 (0.039)	0.003 (0.039)
SES==2	0.017*** (0.003)	0.017*** (0.003)	0.011 (0.040)	0.010 (0.040)
SES==3	0.033*** (0.003)	0.032*** (0.003)	0.038 (0.043)	0.040 (0.044)
Female	0.011*** (0.002)	0.011*** (0.002)	0.006 (0.024)	0.005 (0.024)
Female Head	-0.018*** (0.002)	-0.018*** (0.002)	-0.058** (0.029)	-0.057** (0.029)
Years of Education Head	0.000*** (0.000)	0.000*** (0.000)	0.007** (0.003)	0.007* (0.004)
No. Siblings	-0.009*** (0.001)	-0.009*** (0.001)	-0.027*** (0.009)	-0.027*** (0.009)
Household Size	-0.004*** (0.000)	-0.004*** (0.000)	-0.005 (0.006)	-0.005 (0.006)
Log IDP Share	-0.009*** (0.002)	-0.003 (0.015)	-0.022 (0.037)	-0.109 (0.203)
Constant	0.947*** (0.011)	0.972*** (0.062)	0.816*** (0.178)	0.479 (0.789)
N	48535.000	48535.000	709.000	709.000
F-Stat	43.343	42.727	3.254	3.226
R ²	0.022	0.022	0.106	0.099

Source: ECH 2001-2006. Note: Enrollment is a binary variable that indicates if the child is enrolled in formal education in the year of the survey. SES is a dummy variable indicating the socio-economic strata. Robust standard errors are reported in parenthesis. All regressions include state and year fixed effects. Each individual coefficient is statistically significant at the *10%, **5%, or ***1% level.

Table 9: ECH Regressions for School Enrollment Older Children Ages 13-17

	Non-Migrants 7-12		IDPs 7-12	
	OLS	IV	OLS	IV
Age	-0.104*** (0.001)	-0.104*** (0.001)	-0.103*** (0.014)	-0.103*** (0.014)
SES==2	0.040*** (0.007)	0.045*** (0.007)	0.013 (0.061)	0.013 (0.066)
SES==3	0.107*** (0.007)	0.112*** (0.007)	0.100 (0.066)	0.100 (0.076)
Female	0.014*** (0.004)	0.014*** (0.004)	0.038 (0.039)	0.038 (0.039)
Female Head	-0.035*** (0.004)	-0.034*** (0.004)	-0.099** (0.044)	-0.099** (0.045)
Years Education Head	0.002*** (0.000)	0.002*** (0.000)	0.019*** (0.006)	0.019*** (0.006)
Siblings	-0.001 (0.002)	-0.001 (0.002)	-0.031* (0.017)	-0.031* (0.019)
Household Size	-0.014*** (0.001)	-0.013*** (0.001)	-0.010 (0.012)	-0.010 (0.015)
Log IDP Share	-0.024*** (0.005)	-0.111*** (0.034)	-0.150** (0.061)	-0.150 (0.318)
Constant	2.284*** (0.032)	1.928*** (0.139)	1.508*** (0.342)	1.508 (1.280)
N	38812.000	38812.000	519.000	519.000
F-Stat	283.607	281.332	5.703	5.473
R ²	0.155	0.149	0.224	0.224

Source: ECH 2001-2006. Note: Enrollment is a binary variable that indicates if the child is enrolled in formal education in the year of the survey. SES is a dummy variable indicating the socio-economic strata. Robust standard errors are reported in parenthesis. All regressions include state and year fixed effects. Each individual coefficient is statistically significant at the *10%, **5%, or ***1% level.